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An Address

ON THE MODERN TREND OF PROPHYLACTIC AND THERAPEUTIC IMMUNISATION AND ITS INTERPRETATION.

Being the Presidential Address delivered to the Section of Pathology of the Royal Society of Medicine on Oct. 19th, 1926,

BY JAMES McINTOSH, M.D. ABERD.,

PROFESSOR OF PATHOLOGY, UNIVERSITY OF LONDON, AND DIRECTOR OF THE BLAND-SUTTON INSTITUTE OF PATHOLOGY, MIDDLESEX HOSPITAL.

ACTIVE immunisation is now recognised as a very definite therapeutic and prophylactic practice in human medicine. Prophylactic vaccination, especially, and particularly in respect to several common infective diseases, has been most thoroughly vindicated by the results achieved. Largely by its means small-pox has become rare, and in well-vaccinated countries has practically disappeared. One of the most striking features in the Medical History of the Great War is the almost complete absence of typhoid fever as compared with the high incidence in former wars.[1] We are not, however, on such sure ground when dealing with therapeutic vaccination, for although in certain conditions very striking results have been obtained, yet in many infections failure must be recorded.

I propose first to make a short review of the literature of the subject in order that the main steps by which the process has advanced may be appreciated

PROPHYLACTIC IMMUNISATION.

It was known even in ancient times that a previous attack of an infective disease may render the individual resistant or immune to a second attack; this was the reason for the wilful exposure of children to infection and even to the actual inoculation of infective material. It is to Jenner, however, that the actual discovery of prophylactic immunisation is usually accredited. The earlier workers on this subject all sought to obtain a modified and less virulent virus. Thus in variolisation the introduction of variolous material under the skin seemed to reduce the virulence of the virus and to produce a less severe attack of the disease. Jenner, being familiar with the old Gloucestershire belief that an attack of cow-pox rendered man immune to small-pox, proved in his brilliant experiments the truth of this idea,[2] as a result of which experiments vaccination against small-pox gradually became general over the whole civilised world. It is now known that the virus of small-pox can be attenuated by passage through animals, but whether Jenner used a true cow-pox or only a modified small-pox will never be known, nor does it matter greatly. At the present time it is probable that most strains of calf lymph are variolous in origin and as such are attenuated viruses.

Pasteur and his collaborators expanded the idea of Jenner and applied it to other infections, both human and animal.

For many years it was firmly believed that the use of a living but attenuated virus was essential to the production of a good prophylactic immunity, which of course greatly restricted its application to human medicine. Gradually, however, this belief has broken down; in the 'nineties Haffkine [3] with his plague vaccine, and Wright [4] with his typhoid vaccine, broke completely away from this idea and used dead instead of living virus. Previous to Wright's work on typhoid fever attempts to induce immunity by inoculations of dead bacteria had been merely tentative and incomplete. It is chiefly to Wright, therefore, that we owe the knowledge that killed cultures provide an efficient means of producing immunity.

The success of prophylactic vaccination against typhoid fever has already been noticed, but it is equally successful against many other infections, including dysentery, cholera, plague, and pneumonia. During the past few years we have seen attempts to simplify the prophylactic injection still further by employing, where possible, simple bacterial products, toxoids, and even aggressins, as in the prophylactic inoculation against diphtheria,[5] scarlet fever,[6] and other infections. The toxin may be modified by the addition of antitoxin or chemical substances. Thus we see that the general trend of medical progress has been to drop the use of a living virus for the dead virus or for some of its products. In immunisation against rabies, virus killed by heat, carbolic acid, ether, &c., have in many institutes replaced the original dried cord method of Pasteur.[7] There is now only one human disease—i.e., small-pox—in which the injection of the living virus is still widely used to procure an immunity. Apparently the Jennerian method is still employed for want of a more reliable one, or is it that the prophylaxis of this particular disease has been so bound down to a fixed procedure that stagnation has followed? Scientifically, it cannot be disputed that from every point of view the injection of virus capable of multiplying in the body of the individual is bad. When multiplication of the virus occurs, then there is no possibility of estimating the dose to which the patient has been subjected. Thus the effect cannot be controlled, and in susceptible individuals this may lead to unforeseen results. It can, of course, be argued on statistical grounds that the likelihood of bad effects after small-pox vaccination is infinitesimal and not worth consideration; but is this really so? It has recently been shown that nervous disabilities (meningo-encephalomyelitis, &c.) may follow vaccination, either as a direct effect or as a sequel to the lowering of the general resistance of the body.[8] From time to time there have been attempts to reintroduce the use of an attenuated living virus as a prophylactic measure in certain other human diseases; particularly is this true in regard to tuberculosis.[9] This I am sure is an innovation which should be rigorously opposed and regarded as a retrograde step; who knows for how long an attenuated bacillus can lie dormant, and then assume its former virulence?

THERAPEUTIC IMMUNISATION.

For the introduction of bacterial immunisation as a curative measure we are indebted to Wright [10] and his collaborators. This form of vaccine therapy is, however, really a development of prophylactic immunisation, but I think that most of you will agree that it has not proved so successful. Once it was hoped that vaccine treatment controlled by opsonin estimations would give therapeutic success rivalling the results of prophylactic immunisation. This hope has been disappointed.

At the outset the originators of this form of therapy insisted on the specificity of the reaction and emphasised the use of specific vaccines. At the present moment there is a tendency for the pendulum to swing the other way, and it is said that there is nothing in this vaunted specificity. Let us analyse this contention under the heading of Non-specific Therapy.

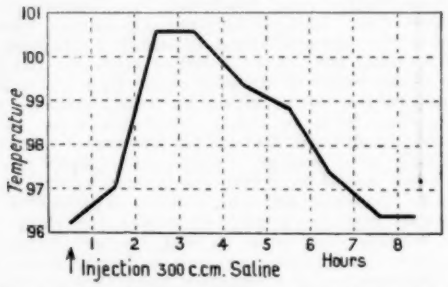
Non-specific Bacterial Therapy.

As I have just pointed out, Wright's original vaccine therapy is based on the principles of strict specificity. But it was frequently observed that rapid improvement followed almost immediately on the injection of a single dose of vaccine, a fact which could not be explained on any of the known phenomena of immunity. This was first noted as long ago as 1893 when Fränkel treated cases of typhoid fever with typhoid vaccine,[11] and Rumpf with *B. pyocyaneous* vaccine.[12]

It is now recognised that other substances, particularly of a proteid nature or origin, can bring about similar phenomena. It would appear that a stimulus is liable to follow on the injection of any substance

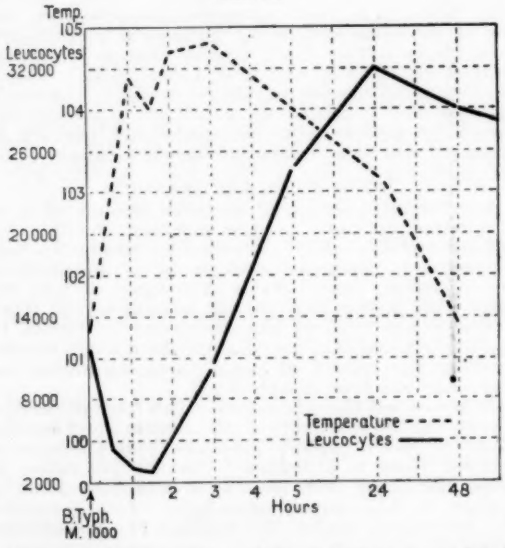
which might be regarded as a foreign proteid. My own attention was first drawn to this reaction when investigating with Dr. P. Fildes the causation of saline fever in relation to salvarsan therapy. In 1912 Dr. Fildes and I noted that the rapid healing of leg ulcers, chronic eczema, &c., frequently took place after an injection of what we then believed to

FIG. 1.



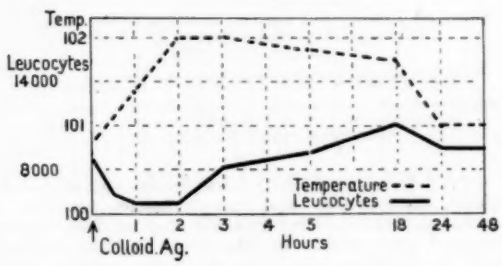
be normal saline.[13] Subsequent investigation demonstrated that saline prepared from ordinary distilled water contained large numbers of dead bacteria—bacteria which are able to grow in distilled water. The injection of such saline intravenously gave rise to considerable reaction on the part of the patient, which we may now regard as protein shock. Generally within half an hour of the injection the patient manifested a rigor followed by a rise of temperature of from 2–3° C., with headache, nausea, or vomiting, and a rapid pulse. The temperature reached its maximum in about three hours' time and then,

FIG. 2.



accompanied by sweating, it slowly fell to normal. In about eight hours' time the patient's condition was again normal, and as already mentioned, the healing of various skin lesions was greatly stimulated. At the present time a considerable amount of success has followed the application of non-specific proteid therapy in such disorders as chronic ulcers, chronic eczema, and rheumatoid arthritis. This line of treatment must also be regarded as a direct development of specific vaccine therapy. The dosage must be sufficiently high to produce a well-marked tissue response, which is apparently preceded by a temporary depression of the defensive mechanism of the body. That large doses of vaccine have this latter effect was well known to Wright, who noted the depression of the opsonic index—termed by him the negative phase. It was undoubtedly the fear of producing this negative phase that prevented the use of larger doses of vaccine, and who is bold enough to say that a more heroic dosage might not have given a better therapeutic result—at any rate in the subacute or chronic infections? We know that

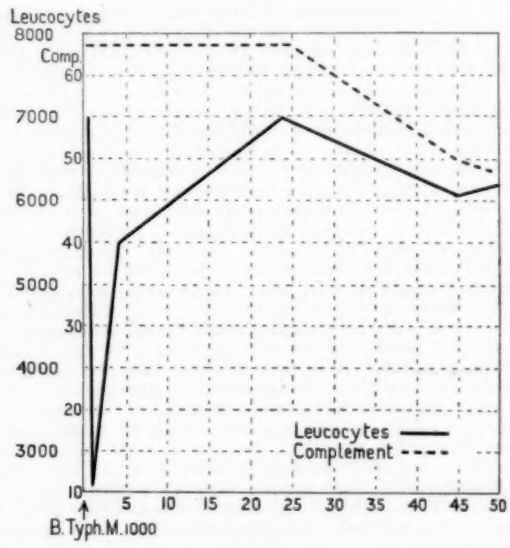
FIG. 3.



although the smaller dose may produce immune bodies it does not always cure the patient. The application of large doses of vaccine to those conditions, such as tuberculosis, where there is a hypersensitiveness to the antigen, is inadmissible on account of the intense reaction which is liable to follow.

When used in larger dosages, specific vaccines produce the typical protein shock of non-specific therapy. The general consensus of opinion seems to be that non-specific or protein shock therapy has come to stay, since in many subacute and chronic

FIG. 4.



infections it has given striking therapeutic results. The effect, as already indicated, is mainly due to the stimulating effects of a foreign proteid or proteid derivative, and the curative effects of such remedies as normal horse serum, Coley's fluid in sarcomata, or a concurrent infection, are all attributable to the same phenomenon; may it not be that some of the effects of colloidal lead in malignant disease are of much the same nature? At the present moment it would appear that the success attained by non-specific therapy has reacted against the use of specific vaccines, and there has followed in some quarters a tendency to minimise the old belief in the value of specificity. But from a scientific point of view this is quite erroneous, as the specific vaccine can cause

both the specific and non-specific reactions, so that by its use a double effect is produced.

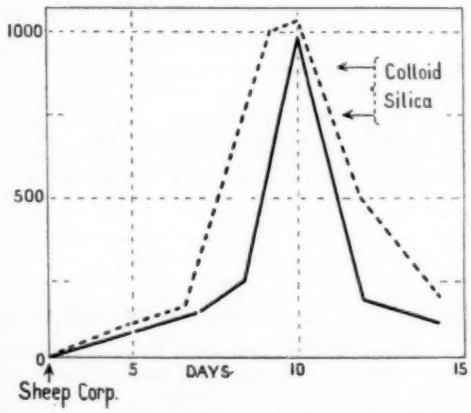
THE MECHANISM OF BACTERIAL IMMUNISATION.

This now brings us to the second part of my address—namely, the nature of these specific and non-specific reactions with which I have just dealt.

Specific Immunisation.

With regard to specific immunisation, immunologists now recognise that resistance to infection following the use of vaccines depends mainly on two factors: (1) The production of specific antibodies. (2) The sensitisation (allergie) of the tissues to the virus. For instance, after antityphoid vaccination antibodies can be demonstrated in the serum for

FIG. 5.



several years afterwards, and even after these can no longer be demonstrated the tissues are still sensitised, as shown by the rapidity with which antibodies can be produced after an injection of antityphoid vaccine.

Dr. L. E. H. Whitby, working in my laboratory, found that antibodies (agglutinins) were readily demonstrated several years after a prophylactic antityphoid inoculation.

Non-specific Therapy.

In spite of a considerable amount of research work into the phenomena of non-specific vaccine therapy, the answers obtained have been rather indecisive. In an indefinite sort of way the effect is accredited to leucocytic action, to an increased flow of blood and lymph, to antiferments, antibodies, phagocytosis, &c. One very definite fact, however, is established—namely, that in most instances the injection is followed by a leucocytosis. As a series of observations on antibody production, which I made quite recently in conjunction with Mr. A. N. Kingsbury, and a later unpublished series made with Dr. Whitby, have some bearing on the explanation of this reaction, I propose to give some account of them here. The phenomena observed may be readily grouped under three headings: (1) General tissue reaction. (2) Leucocyte response. (3) Immunity or antibody response.

The *general tissue response* is apparently dependent on the pyrogenetic properties of the foreign (bacterial, &c.) proteid, as we found was the case in saline fever. This reaction, I think, must be regarded as a process identical with that which occurs in the fever which accompanies a natural infection. Fever, of course, is now regarded as part of a protective process and not to be suppressed, as was the practice at one time. During a fever response the general metabolism is increased, circulation quickened, and the flow of lymph is increased. In this way there is an increased flow of all the protective substances through the tissues of the body, together with an increased rate of removal of waste and such like substances. The effect in its broadest sense is therefore comparable to the old-fashioned poultice or to a fomentation. Such a reaction alone is bound to stimulate the healing of various lesions.

Fig. 1 shows the temperature curve of saline fever produced by the injection (intravenous) of 500 c.cm. of saline—not made from freshly distilled water.

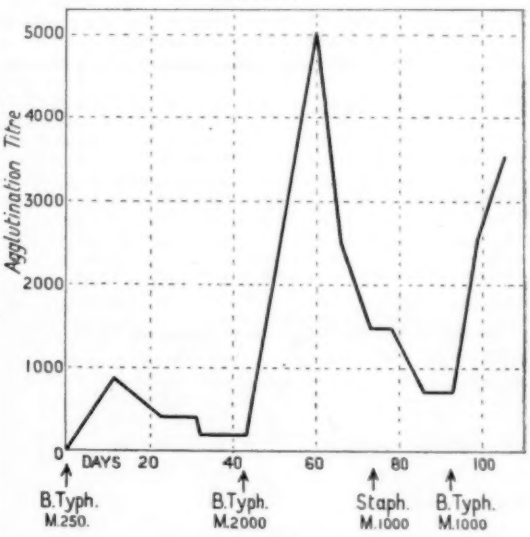
The *leucocyte response* is very definite. It consists, first of all, of a diminution (leucopenia) within an hour of the injection, which is immediately followed by an increase, till within 24 hours there is a well-marked leucocytosis (polynuclears). The effects of a protein shock as obtained in non-specific therapy produced by the intravenous injection of a 1000 million *B. typhosus* vaccine into a rabbit is shown in Fig. 2.

It has been stated that this non-specific effect is mainly the result of the interaction of one type of colloid with another, and it has been claimed that colloidal metals have a similar effect. In our hands the response to the injection of colloidal metals has always been much less than that produced by an organic colloid. Fig. 3 shows the effects of an injection of 0·05 grm. of colloidal silver intravenously injected into a rabbit. Perhaps much of this stimulation is due to the organic colloid used to protect the inorganic colloid. In the case of the guinea-pig the injection of colloidal silver seems at times to have rather a depressing effect, as at the end of seven days the leucocytes had fallen to about one-third of their number, no doubt as the result of the toxic action of colloidal silver.

Antibody Response.

Under this heading the effect on both the natural and immune antibodies has been considered.

FIG. 6.



(*a*) *Natural Antibodies.*—In this connexion certain writers, in particular Jobling and Petersen[14] and others, claim that following an injection of foreign proteid an increase in the ferments and antiferments of the body can be demonstrated. But on their own showing the percentage increase is small and unlikely to be of much value. It seems more probable that the increase observed is in some way or other bound up with the leucocytosis, as the curves given by these writers follow very closely those of the leucocytosis. Estimations of the opsonic index have likewise given very little information. Bulloch and Ledingham, with injections of nuclein, claim a temporary increase of opsonins of 50 to 100 per cent.[15] My own experiments have never shown a very definite increase and in some cases a depression has been noted with bacterial vaccines. On the blood complement, injections of vaccine, apart from a slight depression, had no

distinct effect (Fig. 4). But injections of colloidal silver caused a considerable diminution.

(*b*) *Hæmobactericidal Power.*—The antibactericidal power of the blood after foreign protein injections was estimated by the slide cell method of Wright, Colebrook and Storer.[16] In the first experiment detailed below, a rabbit was injected with 1000 million *Bacillus typhosus* intravenously and staphylococcus used as the implant. Estimates were made before the inoculation, 1 hour, and 18 hours after. The results as calculated from the percentage of surviving colonies show a slight increase (30 per cent.) in the killing power of the blood 18 hours after the injection.

In a series of experiments devised with the idea of elucidating this point, I could find little or no evidence that the specific antibodies were increased after the injection of a heterologous antigen or of an inorganic colloid. The results were similar to those obtained in the chemical stimulation of antibodies.[20] The antibodies tested for were hæmolytic amboceptor, agglutinins and bacteriolysins.

The Effects of Colloidal Silica on the Amboceptor Titre of a Rabbit Immunised against Sheep Corpuscles.

An injection of 1 c.cm. of colloidal silica intravenously gave no appreciable rise of titre, as shown

TABLE I.—*White Rabbit: 1000M. Typhoid Intravenously. Implanted Staphylococcus Aureus.*

(A) Implanted per c.cm. of blood. (B) Number implanted (I) and found (F) per 50 c.cm. blood. (C) Percentage of survivors.

Before inoculation.				1 hour after.				18 hours after.			
(A)	(B)		(C)	(A)	(B)		(C)	(A)	(B)		(C)
	I	F			I	F			I	F	
2,500	125	88	70 } Av.	2,500	125	113	90 } Av.	4 500	225	100	44 } Av.
1,250	62·5	56	89 } 83	1,250	62·5	60	96 } 93	2,250	112	52	46 } 50
625	31·2	28	90 }	625	31·2	29	93 }	1,125	56	34	60 }
312	15·6	18	100	312	15·6	19	100	562	28	28	100
250	12·5	22	100	250	12·5	20	100	450	22·5	22	100
Totals ..	246·8	212	86	—	246·8	241	97	—	433·5	236	54
Leucocytes: 13,800				2,200				33,400			

(Table I.) A similar experiment in which colloidal silver was injected and staphylococcus used as the implant gave a somewhat similar result. (Table II.)

TABLE II.—LYTIC POWER.—*Rabbit No. 5: Injected 1000 M. B. typhosus Rawlins.*

15th day: Bacterial suspension diluted (*B. typhosus*).

—	1/10³	1/10⁴	1/10⁵	1/10⁶	1/10⁷	Colonies.	Average.
Agglutination titre	1 in 2,500.						
Suspension control	++	7,200	910	120	20	Col.	—
Complement control	++	8,400	1,200	132	18	„	—
Serum (1 in 20) ..	++	7,124	672	64	3	„	—
Percentage reduction	—	1	56	47	85	„	*47*
Whole blood (1 in 20)	++	8,200	640	72	7	„	—
Percentage reduction	—	—	31	40	65	„	*45*

16th day: Injected 1 c.cm. colloidal silver (0·05 g.).

Agglutination titre	1 in 320.						
Suspension control..	++	10,400	1,520	184	19	„	—
Complement control	++	++	1,624	203	22	„	—
Serum (1 in 20) ..	++	++	980	87	8	„	—
Percentage reduction	—	—	35	53	58	„	*43*
Whole blood (1 in 20)	++	++	1,240	76	9	„	—
Percentage reduction	—	—	18	57	52	„	*42*

In forming an opinion of the value of these two experiments the considerable technical difficulties must be taken into account; to my mind, after allowing for this, the increase of bactericidal power seems to be outside experimental error.

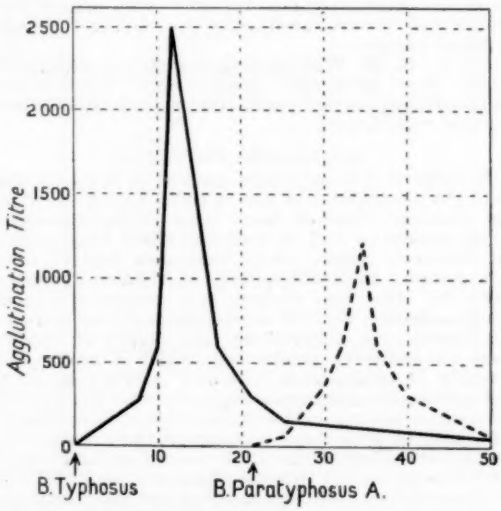
Specific Antibodies.

It has been suggested that one of the main effects of non-specific therapy is produced by a flushing out of the natural and specific antibodies. Hektoen,[17] Conradi, Bieling,[18] and others found that the specific antibodies, agglutinins, &c., were increased after the injection of non-specific antigens. Other observers found no such increase—Baluit, Lüdke,[19] &c. In several of these experiments quoted above I think there is a tendency to lay greater stress on the findings than the results warrant and in such biological tests an increase of even 100 per cent. may not be significant.

in Fig. 5. Similarly injections of bacterial vaccines were without effect (Fig. 6).

[Prof. McIntosh then proceeded to give an account of these various experiments, and showed that injections of heterologous antigens were without appreciable effect on the antibody titre. He showed

FIG. 7.



how one agglutination curve can readily be superimposed on another without interference (Fig. 7). He continued:]

Let us glance back for a moment at what seems a discrepancy between the findings in the bactericidal and hæmobactericidal experiments. The hæmobactericidal results show a slight increase after the injection, while the bactericidal shows no change. In the first place, quite different technique are employed in these two estimations—in the former test the whole blood is used, and in the latter the serum.

If we accept for the sake of argument that the results are correct because they fall in line with the experiments of other workers, then in the whole

blood experiment the leucocytes present are bound to play an important part in the destruction of the test bacteria. After these shock-producing injections the leucocyte-producing tissues are stimulated, and as a result young and vigorous leucocytes are present in greater numbers than before. These leucocytes then exert an increased phagocytic and ferment action. The importance of the leucocyte in this respect has been demonstrated in recent articles by McLean and by Maitland.[21]

I think, therefore, that it may be said that no satisfactory evidence has been brought forward to show that non-specific protein therapy owes its main effects to the stimulation of antibodies—normal or immune. Thus the theory that the substance injected may act as a common antigen or stimulate the tissues which elaborate the antibodies has found no support. Non-specific antigens, I find, have no measurable effect on the antibody titre, and as was shown before, pure chemical substances are without effect on the elaboration of antibodies. The curative effects of non-specific antigens apparently depends chiefly on the general tissue reaction and the leucocyte response.

All experiments have further confirmed the specificity of true immunity reactions, which indicates that the full value of therapeutic immunisation can only be obtained by the use of specific antigens.

SUMMARY.

It would appear, therefore, that in both prophylactic and therapeutic immunisation in man the general trend has been towards simplification. Gradually the living attenuated virus antigen has been replaced by a dead virus or bacterial product, and the dosage accurately controlled. In prophylactic immunisation the protection afforded apparently depends mainly on the specific antibodies elaborated, and on the sensitisation (allergie) of the tissues.

In therapeutic immunisation two factors are at work, a specific and a non-specific. The specific is a typical antibody response, while the non-specific appears to be mainly dependent on a general stimulation of the tissues and leucocytes—in fact, to a process comparable to fever, it is to be noted that in recent years there is a greater tendency to make use of the valuable non-specific response.

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(*Continued at foot of next column.*)

Inaugural Address

ON

PRIVATE MEDICAL PRACTICE AND PREVENTIVE MEDICINE.

Given to the Derby Medical Society on Oct. 14th, 1926,

BY SIR ARTHUR NEWSHOLME, K.C.B., M.D., F.R.C.P. LOND.,

LATE PRINCIPAL MEDICAL OFFICER, LOCAL GOVERNMENT BOARD.

IT is not my purpose to mention more than incidentally the official relationship between practitioners in public health and private practitioners. I choose as my more useful task those aspects of the practice of medicine affecting both classes of practitioners, in which active continuous individual collaboration is needed to secure the further advances in national health well within our reach. If in the course of my remarks I appear occasionally didactic, I may claim at least the advantage of experience during seven years in hospital and private work, and during the remainder of a long public health career in organising measures necessitating intimate and almost daily contact with the private practitioner.

Of course, the chief work of the private practitioner is, and for long must continue to be, the guidance of the sick person towards recovery, or the alleviation of his increasing sickness. Except to the callous or the indifferent there must in such work always be a recurrent note of sadness which cannot be escaped; and I know no means for relieving and softening this note more efficacious than the belief that such work—discharged without the hurry which is fatal to efficiency, and carried out with all available scientific aid—not only diminishes the burden of suffering, but also is itself an important means of prevention of disease.

This belief in the wider individual and social importance of private medical work is not a modern conception, though it could not become effective on a considerable scale until medicine became in large measure a branch of exact biological science. There could be no such ideal so long as disease was regarded as a divine or satanic infliction, or as inevitably influenced by the planets. Nor so long as medicine was victimised by doctrines and dogmas, evolved from philosophical hypotheses which were not the final product of carefully checked induction from homogeneous facts, could rational efforts to prevent disease be initiated. The instance in 1853 of an influential petition by a religious body to a Prime Minister of Great Britain to arrange for a national fast on royal authority to prevent the invasion of Asiatic cholera is well known; and it reminds us how recent is our escape from the view that epidemics are a divine visitation, a view as fatal to medical progress as the doctrines which led some doctors to bleed all their patients, and other doctors to give them enormous doses of alcohol.

And yet so long ago as 460 B.C. Hippocrates of Cos had enunciated the truth that disease is a disordered process of nature, and that we must trust to the powers of nature—the *vis medicatrix naturæ*—for controlling it, while aiding this by a judicious medical art. As he said in his "De aere, aquis, et locis":—

"No disease comes from the gods, one more than another, each acknowledging its own natural and manifest cause."

(*Continued from previous column.*)

18. Bieling, R.: Untersuchungen über die veränderte Agglutininbildung mit Ruhrbacillen vorbehandelter Kaninchen, Ztschr. f. Immunitäts, 1919, xxviii., 246.
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But dogmas based on theoretical considerations governed the centuries, and the doctrines of Galen and Aristotle impeded individual inquiry into the processes of nature. Perhaps our English Sydenham (1624–89) was more instrumental than any other on the clinical side, as was his contemporary William Harvey on the scientific side, in bringing back the minds of people from this attitude to the study of medicine as a branch of natural history. He said:—

"The only means of acquiring a correct knowledge of the fundamental principles of medicine consists in attentive observation of the whole of the phenomena of disease, and vigilant and minute inquiry into the progress and fluctuations of the several symptoms, from which alone the true and natural indications of cure can be deducted."

Subservience to unfounded doctrines was slow in disappearing even after Sydenham's day, but it is by the method thus enunciated by him that the private medical practitioner has made the invaluable contributions to the progress of medicine which we owe to him. The most recent illustration of this is furnished by the life and work of Sir James Mackenzie, whose biography has just been published. He succeeded in freeing our conceptions and preconceptions as to cardiac disease from many errors, in unravelling the mechanism underlying symptoms, and in mastering their prognostic significance, and thus opening the way for more successful treatment of cardiac disease and for prevention of its later consequences. I may refer also to the earliest recorded British example of the application of clinical knowledge to the task of discovering the causation of a disease then very prevalent. You have on the table a copy of the classical contribution read in the theatre of the College of Physicians in London on June 29th, 1767, by Sir George Baker, F.R.S., on the "Cause of the Endemial Colic of Devonshire." Baker was a Devonshire man and was familiar with the symptoms and sequelæ of Devonshire colic. Practising in London he was struck with the resemblance between these symptoms and those of lead poisoning in painters, and on the basis of this similarity conceived the view that the Devonshire colic might owe its origin to lead. This was a preliminary hypothesis based on clinical experience, but he determined not to be among those who in his own words are so obsessed by their favourite theories that they "seldom forget opinions at the bedside, which have been the result of much contemplation at home." He therefore proceeded to make an exhaustive examination of the facts.

On investigation he found that the colic of the cider counties was almost confined to Devon, Hereford and Gloucester in the main escaping. Assuming, as appeared to be clear, that cider caused the colic, evidently the Devonshire cider must differ from that of the two other cider counties. As the clinical symptoms were those of lead poisoning, might not this difference consist in lead?

I need not detail how Baker found that the stone troughs in which the apples were ground were clamped in Devon in a way which included soldering with lead, and the use of lead in the fissures of the troughs; while elsewhere other methods were adopted. Nor need I give the actual analyses of cider, positive and negative, clinching the presence in Devonshire cider of lead,—which clinical knowledge showed was competent to produce the widespread disease,—and its absence from the cider of the other counties. Baker was then able to suggest action, which when adopted demonstrated that the colic associated with cider drinking was not caused by tartar or by the acridity of the drink, but by lead accidentally introduced in the process of manufacture.

The history of preventive medicine, and especially of Listerism, is rich in instances in which, as in the outstanding examples to which I have alluded, life has been prolonged and saved, and disease has been reduced by the accurate, painstaking, and intelligent study of clinical medicine. If I were to mention one chief obstacle to many more triumphs of clinical medicine over disease, it would be that so many practitioners appear to have too many patients, or to be otherwise too busy to be able systematically to think out each case after devoting adequate time to its study, having utilised every available means of diagnosis, whether by consultants or otherwise. When I remember the scandalous way in which at dispensaries and hospitals out-patients were formerly "disposed of," sometimes at the rate of two or three minutes for each patient, I realise that much improvement has occurred; and it is satisfactory to note that even busy practitioners when imbued with a sense of their scientific and moral responsibility find time for more careful work, which is among the most valuable of all contributions to preventive medicine in the present day.

But having claimed for clinical medicine and surgery some of the greatest triumphs in preventive medicine, I must now pass on to consider some examples of still existent evils, which need not continue, if all medical practitioners "pulled their whole weight," and if they had the steady coöperation both of patients and of public health authorities. My illustrations will be taken from three special branches of medical public health work, with the genesis and development of which I have been associated. I refer to the special services of maternity and child hygiene, of tuberculosis, and of venereal diseases. In each of these, although public health authorities are concerned chiefly in the prevention of disease, it is impracticable to draw lines of demarcation between treatment and prevention, and there must be secured, if success is to be complete, whole-hearted collaboration between the official and the private practice of medicine.

THE PRIVATE PRACTITIONER AND THE PREVENTION OF TUBERCULOSIS.

Let me instance first tuberculosis which is still responsible for about 9 per cent. of the deaths registered from all causes in England and Wales, although the death-rate from it is considerably less than half that of 40 years ago. This means that in 1925 there occurred 40,387 deaths from a completely preventable disease, and a vast mass of invalidity and suffering of serious social import.

Why is not a more rapid reduction of this unnecessary drain on our national life being secured? To completely answer this question would prevent me from taking the wider survey proposed in this address. Many of the points which I should otherwise stress are embodied in a contribution to THE LANCET, of May 29th, 1926, on the Present Position of the Tuberculosis Problem.

Here I can only allude briefly to some of the obstacles to more rapid progress. Experience on all sides shows that in a large proportion of the total cases of pulmonary tuberculosis treatment is belated and unsatisfactory. The reasons for this are well known. There is first the unwillingness of patients to come for treatment at an early stage, and much educational work is needed—as in the case of cancer—to secure a general recognition of this point. But it must be agreed that a large number of practitioners—happily a decreasing number—appear to fail to examine their patients carefully, and may continue for weeks or even months treating them for winter cough, for influenza, or for other vague conditions, when an accurate diagnosis might have been made much earlier either by the practitioner himself, or by him in consultation with the bacteriologist (by examination of sputum), or with the tuberculosis officer whose gratuitous services are available in every area throughout Great Britain for this purpose. Not only so, but in special cases the help of the X ray photograph is now commonly accessible at the public expense.

The new regulations as to the relation between panel doctors and the tuberculosis officer may be expected to help; but for insurance and non-insurance patients alike there is needed—as we all increasingly realise—closer coöperation between consultants and

general practitioners, first for the use of available special services, but also for similar and extended provision for others now excluded from these services. The days for single-handed practice have gone by. We all have to admit our need for help from brother practitioners who have skill in a special department of medicine. The appreciation of this need and action upon it does not diminish the importance of the general practitioner, who in the interest of his patient is the assessor and executor of the special knowledge which the expert contributes as a guide in the treatment of the patient.

In no disease more than in tuberculosis is the hygienic work of the private practitioner more important. Is this fact universally appreciated? Do we lay adequate stress on the importance of teaching the patient to cough with his mouth screened, as well as on suitable disposal of sputum? Do we impress upon the patient, and do we adequately realise ourselves, that 14 to 15 per cent. of the total deaths registered from tuberculosis occur at ages under 15 years; that juvenile tuberculosis is concerned also in many deaths registered, for instance, as broncho-pneumonia; and that it is highly probable that infection of human origin in childhood bears a large share in producing adult mortality from pulmonary tuberculosis? Above all, do we realise that this mortality in childhood and youth as well as in adult life results nor merely from circumstances of life favouring effective infection, but is due to repeated and excessive doses of infective material received from adults, who are in our professional charge and to whom we may not even have revealed the nature of their disease? There can be no reasonable doubt that if a simple hygienic code of conduct were rigidly followed by every consumptive patient a much more rapid decline of tuberculosis, especially among children, would follow. For the partial character of the success already secured, not only the medical attendant, but also public health authorities who are slack in their administrative and educational work against tuberculosis, and patients and their relatives who fail to adopt the — often inadequately impressed — precautionary measures which are needed must share the heavy burden of responsibility.

THE PRIVATE PRACTITIONER AND VENEREAL DISEASE.

The case of a patient suffering from a venereal disease furnishes an even more striking example of the intimate interlocking of public and private interests. Appreciative testimony should always be given to the public-spirited attitude of the medical profession in welcoming in 1916 the organisation of clinics for the treatment of venereal disease in every county and county borough at the public expense, and without limitation as to the financial resources of the patient. A remarkable decline of deaths from venereal diseases as compared with pre-war years has been associated with these efforts and with the allied work in which private practitioners and public health and military authorities have coöperated. Great progress has been secured; but these diseases continue to be a serious scourge of humanity, one of the chief causes of premature mortality, one of the largest feeders of our lunatic asylums, and a terrible cause of suffering to innocent women and children.

How can we hasten the diminution of these diseases? If doctors are willing and ready to urge upon each mother and father coming within the scope of their practice the value to health of the training of children's characters on sound psychological lines; and if, with their special knowledge of physiology and pathology, they are prepared to advocate sexual continence, and chastity in the unmarried, and not to permit or even silently sanction the assumption that these are not to be expected from the normal man or woman to whom matrimony is impracticable, then great further progress can be made. The difficulty is that many doctors are not convinced on these points; and that especially we often fail to recognise the social aspect of religion which demands the subordination, in matters affecting the communal welfare, of the personal to the communal interest. Is it not the duty of the doctor as much as of the religious leader or the parent to live up to this ideal? But apart from the supremely important ethical aspect of the venereal problem, there is serious neglect of large branches of preventive work for venereal disease, which are medical in character. May we not profitably consider these sins of omission from the standpoints of private practice?

A not inconsiderable proportion of premature births and of stillbirths are due to syphilitic infection of the fœtus. The medical officer of health receiving returns as to stillbirths finds action beset with difficulties, which if initiated by the family doctor would become easy. In what proportion of cases in which there is reasonable suspicion does the doctor arrange for an examination of the mother's blood, or for examination of fœtal tissues for evidence of syphilis? This examination can be obtained gratuitously. And if this is not done, is not he open to the accusation of possible neglect of the vital welfare of the patients entrusted to him in the conditions of private practice? In asking these questions I fully appreciate the difficulties in doing what is suggested, the obstruction of patients to undue "fussiness," and the courage implied in suggesting the need for such examinations. But are not difficulties meant to be overcome, and can we, or ought we, to have an unreproachful conscience, until or unless we have attempted in every instance to fulfil these duties?

Similar questions arise as regards the medical history and condition of the rest of the family when a husband is under our care for syphilis. Inquiry may show the need for examining these, and are we then justified in refraining from pressing for this to be done?

The position teems with difficulty, and my only desire in asking the preceding questions, which might be expanded did time permit, is to assist towards the more rapid development, in any doctor in whom it may be lacking, of the sense of inherent communal responsibility which is implied in the privilege of family medical practice. In the case of tuberculosis the need for frank medical consultations has been emphasised. This need is even greater for the treatment of both syphilis and gonorrhœa, in which very specialised treatment is demanded. The family doctor to justify his continuing to treat these patients until free from infection must be in a position to treat at least as satisfactorily as the medical officer of a venereal disease clinic.

THE FAMILY DOCTOR AND MATERNAL CARE.

It is not sufficiently appreciated that in the ordinary circumstances of general practice the family doctor is as intimately concerned with the physiological as with the pathological side of life. He is the adviser in the physiological process of pregnancy and parturition and of lactation, including the factors making for mental contentment; he is the trusted counsellor as regards the development of the infant and child; and we may reasonably hope that as his knowledge and competence grow, and as public intelligence increases, he will gain his right position as the guide and counsellor of adults in regard to occupational dangers and to habits of life, especially as to right feeding and drinking.

The word *obstetrician*, as you know, carries with it the meaning of "standing by" to watch the normal process of parturition; and in view of the increasing outspokenness of gynæcologists and others as to the amount of mischief done by premature or possibly entirely unnecessary operative interference with the process of childbirth, it may, I think, be regarded as axiomatic that, except when intervention is urgently needed, a return of the obstetrician to the position of expectant attention is needed in many obstetrical practices. To adopt this course requires courage. The doctor is called upon by the suffering mother and the over-anxious relatives to precipitate matters;

but, given a normal presentation and no excessive delay, the responsible accoucheur temporises by means of a well-chosen sedative. When we know that injury by forceps is a common source of puerperal sepsis and of injury to the infant's brain; and that stillbirths, deaths in early infancy from convulsions, and even feeble-mindedness in surviving infants appear to be especially associated with operative midwifery, the need for careful weighing of the circumstances of each case is sufficiently evident.

The best method of attendance in parturition is secured when the doctor has made it a condition of this attendance that the mother shall have adequate prenatal supervision and care. In fact such medical care is more important than the presence of a doctor at the uncomplicated confinement. At the present time probably nine out of ten mothers do not receive such pre-parturient care. And yet we know that it is important for many reasons. The first is physiological. The subsequent health of her infant is dependent above all on efficient motherhood; and this depends on the mother's health, including the factors making for avoidance of maternal anxiety, care of her teeth, and a dietary which contains anti-scorbutic and antirachitic foods in adequate amount. The early diagnosis and treatment of syphilis and of albuminuria are called for; and the ascertainment of pelvic measurements enables the obstetrician to anticipate complicated parturition and take action as needed.

Should not every medical practitioner be prepared to adopt the rule, demanded by medicine and ethics alike, that apart from emergencies he will only act as accoucheur in cases in which antenatal supervision has been secured? The physiological work on behalf of the mother finds its normal sequel in that affecting the infant. Most of us as practising doctors have relatively few personal opportunities for watching the progress of healthy infants, and this is a handicap in medical work for sick infants. But our knowledge has vastly increased, and has become widely available, through health visitors and others, for mothers everywhere; and the application of this knowledge has borne an important part in the halving of the rate of infant mortality since the present century began. This is especially true as regards the problems of nutrition and the more general problems of efficient motherhood. In this fundamental branch of medicine we are now in a position to become to an extent, never before practicable, *doctors*—i.e., teachers of preventive medicine—and thus raise the general standard of maternal and child health.

THE FAMILY DOCTOR AND THE FEEDING OF CHILDREN.

I pass from the problem of assisting the mother towards increased efficiency in motherhood, in its mental and physical aspects, to take an illustration from the dietetics of children. The interesting report by Dr. H. Cory Mann (H.M. Stationery Office, 1926) shows how an average increase in the course of a year in weight of 3·85 lb. and in height of 1·84 in. in boys having a satisfactory basic diet was increased in boys having a daily extra pint of fresh pasteurised milk to 6·98 lb. and 2·63 in., with the additional result that the boys having the extra milk ration were "obviously more fit than those of the other groups."

Our knowledge of the causation of rickets has been greatly extended, thus rendering it possible to prevent much serious and disabling disease. Although rickets does not figure largely in our national death returns, we know how it may turn the balance against recovery in attacks of measles, whooping-cough, and bronchitis; and we know that it is an important element in favouring the serious chronic catarrhal conditions of children. Hence its prevention should be a chief object of the family doctor; and its prevention is easy. Given a satisfactory diet of mother's milk, from a mother who is being adequately nourished, especially as regards dairy products and fresh vegetables; or given satisfactory cow's milk, from cows fed in the open; and given as a supplementary safeguard the administration of minute doses of cod-liver oil from birth onwards—regulated according to the assimilative power of the infant—there need be no rickets. We know also that daily experience of outdoor air and of the sun's rays can to some extent compensate for deficiencies in the dietary, and like ultra-violet radiation are invaluable both in preventing rickets and in curing this disease when already established.

Will it not be a grave reflection on family medical practice, as well as on the publicity work of public health authorities, if within a generation rickets does not become as rare in this country as typhus fever or hæmophilia?

The importance in another connexion of suppressing rickets is too little recognised. We are all aware and ashamed of the fact that the mortality of women in childbearing has been so little lowered, notwithstanding the attention repeatedly drawn to the subject. For its further reduction closer coöperation between public authorities and practitioners is urgently needed. The provision of an experienced consultant available to any practitioner having charge of a difficult confinement would greatly help, and the new notification of puerperal pyrexia, if private doctors and such a consultant coöperate, should also help. The insistence by the medical practitioner on antenatal supervision of his patient will, as already indicated, be even more valuable.

But the prevention of rickets forms a chief means for lowering puerperal mortality. As I have elsewhere pointed out—

> "A sure way of decreasing childbed mortality is to make cod-liver oil a regular item in the dietary of the mother during the first year of her life."

A contracted pelvis goes along with the pigeon-breasted condition, and with the bowed legs of rickets; and such a contracted pelvis is a chief cause of difficult parturition and the fatal sepsis so often associated with this.

THE SCHOOL MEDICAL SERVICE.

In the preceding remarks I have touched only on a few points relating to the work of the private practitioner bearing on three great services of the State in preventive medicine. Similar remarks might be made on the school medical service, the necessity for the beneficent work of which on a much larger scale than has hitherto been secured might be obviated if antituberculosis work, antisyphilitic work, and the care of mothers and infants, and of the pre-school child were carried out systematically and completely. This can never be fully accomplished, unless in the course of his daily work the family doctor comes to regard himself as an integral part of the entire medical organisation for the service of the public.

HOW THE DIPHTHERIA MORTALITY-RATE MIGHT BE IMPROVED.

I am tempted to give one further illustration of our partial failure to secure the saving of life and the prevention of illness which is well within our reach. Consider the present mortality from diphtheria. In 1925 typhoid fever caused 776 deaths in England and Wales, diphtheria 2774 deaths. The first of these diseases we know is rapidly and steadily declining as the result of improved sanitation and sanitary administration; the second we know—judging by past history—will in a few years cause twice or three times the large number of deaths attributed to it last year. In the past typhoid fever also showed epidemic peaks and troughs in a succession of years. Human effort has almost wiped them out; and we know that human effort can do the same for diphtheria. True, infectious material of respiratory origin is more difficult to inhibit than infectious material discharged from the alimentary canal; but

quite apart from such control, it is well within the power of medical practitioners, given intelligent aid by parents, almost entirely to prevent death by diphtheria. (The occasional occurrence of cases of "lightning" virulence forms only a rare exception to this forecast.) That this is not being done is a grave reflection upon the medical profession and upon the parents of the children whose lives are sacrificed to ignorance and negligence. I am not referring solely to the demonstrated possibilities of immunisation of children against diphtheria. Even apart from such immunisation diphtheria within the next five years might be reduced to the level of typhoid fever as a cause of death. This could be done by the prompt administration of diphtheria antitoxin on the first suspicion of diphtheria. Antitoxin is supplied free by local authorities; how seldom is it used by practitioners before the belated admission of their patients to hospital! The failure to do this is due in part to the fatal practice of suspending diagnosis—and even worse, of suspending treatment—until the result of examination of a swab for Klebs-Löffler bacilli has been ascertained. So much is this the case that it may even be debated whether the routine submission of swabs to examination has not caused more deaths than it has prevented.

An important contributory cause of failure to administer antitoxin promptly is the lack of courage shown by the doctor in not acting on suspicion. He may be accused of mistake, if after giving antitoxin a swab is returned as negative. But his explanation to the parents should remove this difficulty; and even if not, can the feared but usually avoidable loss of prestige of the doctor be placed in the balance against the immense saving of child-life which would be secured if the doctor always systematically administered antitoxin when he first suspected diphtheria?

There remains a large class of cases in which the doctor is sent for late in the disease. In view of the occurrence of such cases, the suggestion has been made that every death from diphtheria, like deaths from anæsthetics, should be made the subject of a quasi-judicial inquiry, as being presumably the result of accident or negligence. What a rapid advance in public opinion and in preventive action would be secured if in any district the local medical profession asked the local authority to organise such inquiries and it were done. Let us think how it might be arranged. The local coroner might make inquiries in all such cases, a physician specially chosen for his professional standing and judicial mind being appointed to assist him. On the result of this preliminary inquiry it would be decided whether a formal inquest was indicated. The publicity of such inquiries would, I am confident, be followed in a very few years by a dramatic decline in the death-rate from diphtheria.

THE FAMILY DOCTOR AS PUBLIC HEALTH OFFICER.

The family doctor, if he attempts to follow out some of the suggestions made in preceding remarks, is, it may be urged, owing to his being paid per attendance, open to the accusation of touting for additional work. This fear appears to me to underestimate the intelligence of the average mother and father. We are, furthermore, proud of being family physicians. Privileges always carry obligations, and the paramount indication is to advise the entire family how to avoid sickness. If we do not feel justified in attempting this task—which on general grounds must appeal to us all—are we not confessing by implication that the conditions under which we now practise medicine in our private work are not those which are most conducive to the welfare of the families whose trusted servants we are, and that some radical reconstruction of these arrangements is indicated?

For the one-third of the total population who are insured under the National Health Insurance Act this hypothetical difficulty only exists when the doctor suggests examination of non-panel members of the family. This is not a serious difficulty. As regards expense, the three great official medical services already indicated give a partial answer; and it may be expected that in time the needed additional facilities for pathological diagnosis, for expert consultations, and for hospital treatment—which are indispensable for a satisfactory medical service—will be made available. These cannot reasonably be expected to be forthcoming on the basis of personal payment for personal services. This becomes increasingly costly with each advance in clinical medicine; and this implies an almost intolerable burden, not only on the wage-earner, but also on a large portion of the middle classes. Much will depend on whether medical practitioners generally are prepared to encourage and promote for their patients coöperative efforts on the basis of prior insurance in virtue of which special services, including hospital treatment and skilled nursing, may always be available when needed. Numerous experiments on an insurance basis are in progress to these ends, especially arrangements ensuring medical consultations and hospital treatment whenever these may be required. It is certain that by promotion of such action, and by taking a responsible part in it, family doctors can, while increasing the efficiency of their own medical attendance, strengthen the tie which exists between them and the families which have placed themselves in their charge.

But my intention in this address is not to describe special methods by which the growing and urgent needs of efficient medical practice can be met, but only to indicate the general principles which emerge. I have said enough, I trust, to make it clear that the progress of the application of preventive medicine depends predominantly on the attitude of the medical profession. It has even been said that doctors constitute a chief obstacle to this progress; but this can only be true in those instances in each community in which there is, for instance, failure to use every available means for prompt diagnosis and for adequate treatment of, say, tuberculosis and syphilis; when the duty of prenatal care for every expectant mother whose name is on a doctor's list has not been realised; and when, for instance again, the doctor fails to fulfil his duty as doctor or teacher, in respect of the prevention of rickets, the avoidance of unhygienic habits, and especially in regard to the consumption of alcoholic drinks. In view of the habit-forming risks involved, the doctor who flippantly and without serious reason prescribes alcoholic drinks to an ailing patient is definitely open to the accusation of anti-social action.

In making the preceding remarks, I have claimed the position of family practitioner as well as of public health officer. As practitioners of both these branches of medicine we can claim that we belong to a noble profession, a calling which, in present circumstances, makes it possible for us to influence the ethical as well as the physical course of a multitude of lives. Indeed, if our common work is to be ideally successful, we must increasingly realise that where preventive medicine has hitherto failed—apart from imperfect knowledge—is in regard to those diseases in which character and conduct are concerned. In his intimate relation with the family advised by him who, so much as the doctor, can influence the people to attain to such conduct in life as will improve personal health, and at the same time safeguard the health of others?

SUGAR AND DISEASE.—At the eleventh annual conference promoted by the Durham County Council in connexion with Health Week at Durham, Dr. F. St. J. Steadman, lecturer on dental diseases of children at the Royal Dental Hospital of London, delivered an address on oral sepsis in relation to the public health. He calculated that if the damage done to a race by alcoholism were multiplied by ten we should get some idea of the injury caused by sugar, which was the beginning of dental trouble. Dr. Steadman expressed his belief that if the bad teeth of the inmates of asylums were extracted an appreciable percentage of those inmates would come out and resume their normal position in life.

THE NATURAL FORMATION OF ACQUIRED ADHESIONS.

BY SIR GEORGE LENTHAL CHEATLE, F.R.C.S. ENG.,
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THE natural formation of an adhesion between apposed surfaces, denuded of their endothelial covering and in contact with each other, is a simple matter to explain. Such adhesions would be formed by a healing process of first or second intention. By a slight stretching of the new connecting tissue thus formed a slightly elongated adhesion would result in some instances.

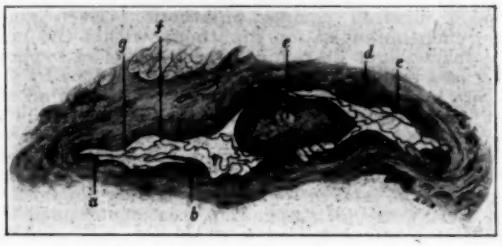
It has always been a more difficult problem for me to account for long, thin adhesions that can so often be observed in serous cavities. It is not practicable to cut whole sections of an abdominal cavity which contains these long adhesions, hence I looked about for a smaller serous cavity that was constantly subjected to traumatic, non-infective inflammation, and I pitched upon the bursa patellæ. I now publish the results of my investigations.

FIG. 1.

An old bursa patellæ which had been constantly subjected to traumatic inflammation over a period of years. It has never suppurated. The bursa has been laid open; a black marker has been inserted behind long adhesions which show excrescences from their surfaces. The base of the bursa shows many excrescences.

Fig. 1 shows a bursa of an old woman whose work necessitated constant kneeling. There never has been suppuration in this bursa. Stretching across its cavity can be seen long, thin adhesions. From the centre of these adhesions appear little outgrowths, the method of formation of which I will subsequently explain. Also, on the exposed surface of the bursa can be seen excrescences of various shapes and sizes. In other parts of this bursa, which are not shown in the picture, but an example of which is seen at *e*, Fig. 2, there were direct adhesions of the nature to which I have already alluded in my opening sentences. Fig. 2 is the microscopical section of a whole bursa patellæ removed from a girl aged 17. This bursa had been inflamed for the first time and was excised ten days after the onset of the attack. The serous and subserous tissues are plicated. They are plicated because these tissues were swollen and increased in size in all dimensions, and, being surrounded by dense connective tissue, they could not expand in all directions. It is to be observed that the cavity of the bursa is filled by a network of fibrin (see D, Fig. 3). Some of the strands of fibrin are attached at their bases (*a* and *b*) to parts of the bursal wall, which are at a long distance from each other. These attachments cannot be explained by any amount of plication.

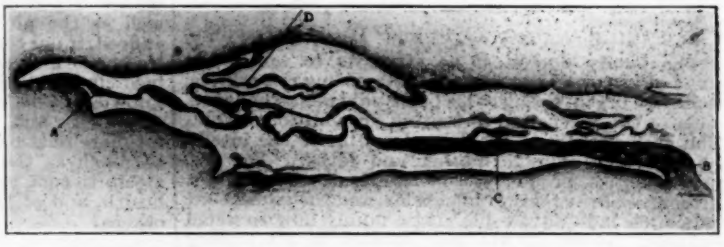
FIG. 2.



The whole section of a bursa excised ten days after the onset of the first attack of inflammation. The surface is seen to be plicated, the interior is filled with a tangled mass of fibrin which is attached at some places, such as *a b*, *c d*, and *f g*, to parts of the surface and in this stage constitute mainly fibrinous adhesions. At *e* will be seen a dense adhesion formed by the *direct method*, when apposed parts have healed while in contact with each other.

What has happened is as follows. The acute traumatic inflammation led to acute inflammation of the parts. Here and there the traumatism rubbed off the endothelium from isolated parts of the surface from which plasma was poured out into the interior of the bursa. This plasma coagulated in the wounds and centre of the cavity, the former giving rise to continuity of attachment of the fibrin in the wounds to the strands of fibrin in the central cavity. At the bases of these attached strands of fibrin two events are to be seen—in Fig. 3. First, the endothelial cells are beginning to grow up the outside surfaces of the strand A and B; secondly, the fibrous tissue (see B) at the bases of the attachment is growing upwards inside this endothelial extension, and taking with it blood-vessels for the nourishment of the new tissues.

FIG. 3.



Represents the microscopical appearances of the adhesions *a b* in Fig. 2. At the base of B will be seen the fibrous tissue spreading up into the strand of fibrin which has also been covered by endothelial cells from the surface of the bursa. At C the organisation of a branch of the adhesion is beginning. The fibrin of this adhesion is gradually being replaced by newly formed connective tissue which is growing into it from the bursal wall (see B). At D can be seen a tangled mass of unorganised fibrin.

As this process continues from two attached bases, the whole strand of fibrin becomes organised into a long adhesion. The excrescences in the middle of the long adhesions, which I pointed out in Fig. 1, are explained by the same process continuing into the tangled parts of the fibrin (see C, Fig. 3). Thus it appears that the

strands of fibrin act in the same way as a hop-pole and forms a scaffolding up which connective tissue grows. The fibrin eventually disappears. The disappearance of an adhesion thus formed probably occurs in the following way. It is known that all young cicatricial tissue is elastic. This elasticity causes pressure upon the newly-formed blood-vessels and diminishes the blood-supply of young adhesions so markedly as to induce their atrophy. Thus they may either disappear, or their bases may remain permanently as excrescences on the surface of the bursal wall. I would term this method in the formation of acquired adhesion the indirect method, and the method with which I opened my article I would describe as the direct method.

The natural formation of acquired adhesions after the occurrence of infective inflammation is a more complicated process than that which occurs after merely a traumatic inflammation. The formation of adhesions after infective inflammation begins with the advent of immunity, when the products of micro-organisms are no longer able to destroy tissues and prevent coagulation of plasma. Upon the acquisition of immunity the organisation of the tangled strands of fibrin begins and continues by the same method as that seen in traumatic adhesions. The main difference in the performance is the delay caused by waiting for the incidence of immunity.

Summary.

The natural formation of acquired adhesions may be due to two methods: 1. The *direct*, in which apposed denuded surfaces in contact with each other heal by first or second intention (see *e*, Fig. 2). 2. The *indirect method*, in which long strands of fibrin become organised by the upgrowth of connective tissue covered by endothelium. They form adventitious connexions between widely separated part of serous cavities (see Figs. 2, 3, 4, and 5).

I must refer the reader to the interesting Hunterian lecture entitled Peritoneal Adhesions, which Mr. Joseph E. Adams delivered in 1913 (vide THE LANCET, 1913, vol. i., p. 663).

AFEBRILE TACHYCARDIA IN EARLY PHTHISIS.

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THE close attention which has been given during recent years to the study of temperature variations in pulmonary tuberculosis has undoubtedly tended to overshadow its pulse-rate phenomena; the following notes, therefore, may not be without use in drawing attention to their practical importance in adults and especially to the frequent occurrence of long-continued afebrile tachycardia as a sign of activity in early phthisis. By early phthisis I mean definite cases of pulmonary tuberculosis (i.e., sputum-positive cases or those with a history of undoubted hæmoptysis) without extensive signs, marked constitutional disturbance or dyspnœa, and showing no evidence of widespread fibrosis, cardiac disease or displacement, or diffuse bronchitis and emphysema.

The Significance of an Afebrile Tachycardia.

To speak of tachycardia is to assume a normal pulse-rate, hence a preliminary definition of its approximate limits becomes necessary. Starling gives it as 68–72 for those between the ages of 15 and 60. At the same time he lays stress on the wide limits of its normality, and personally I have frequently found an apparent normal of from 58–60 in healthy men. The rate normally shows a diurnal variation of about 10 to 15 beats, rising to a maximum between 4 and 6 P.M. The American National Association in their enumeration of tuberculosis diagnostic standards considers that an average pulse-rate of 85 or more in males and 90 or more in females should be considered abnormal, though in my experience a slower rate than this not infrequently denotes toxæmia if it be associated with an exaggerated diurnal swing. Though one may be misled at times, in actual practice it seems reasonable to take as normal for a given individual the lowest readings persisting for a week or so at a time when all other prognostic criteria are favourable. Such a normal has been assumed in the cases that follow.

The common causes of tachycardia are, of course, eliminated by the usual clinical examination and the use of a careful routine in pulse-taking, but a tachycardia due to anxiety or other depressed emotional state, though it can generally be detected and dealt with by careful questioning and reassurance, often causes difficulty

On the occurrence then of a persisting afebrile tachycardia in a case of early uncomplicated phthisis we have to decide whether the condition is directly due to the tuberculous toxæmia, or whether it can be set down to one of those other ill-defined and more remote effects of the toxæmia which have been put forward to account for it. Some writers have suggested a small-sized heart, others interstitial neuritis of the vagus, while Pottenger lays great stress on reflex stimulation of the diaphragm and accessory respiratory muscles producing a "deficient inspiratory act," and thus necessitating increased cardiac action to keep up the normal amount of blood delivered to the arteries.

Whatever the accuracy of these theories, in practice the crucial question is whether the condition be a sign of activity in the lesion or not, for if it is, the patient should, of course, remain under treatment until rest has permanently reduced the pulse-rate to normal, while if it is not, there is no object in keeping him in an institution.

Owing to the undue stress formerly laid on the importance of pyrexia as the distinguishing mark of activity, it is still not uncommon to find that an afebrile tachycardia, especially if low and of considerable duration, is unhesitatingly placed in this second category and consequently ignored. Cases such as those quoted below, however, show the not uncommon persistence of an afebrile tachycardia over comparatively long periods of time and emphasise its clinical importance as a sign of activity.

The condition can generally be associated with a definite toxic crisis such as an hæmoptysis or an attack of pleurisy, and can be classified as pre-critical and post-critical according as it precedes or follows this crisis.

Clinically two types of tachycardia are distinguishable: (1) the *swinging* type either an exaggeration of the normal diurnal variation, swinging from about 65 to 80 or 90, or else showing an increased rate throughout with a swing of about 85 to 110; and (2) the *irregular* type, where there is no regular daily variation but the pulse keeps a rough average of 90 or 100. These two types are often, though not always, found in the same tachycardia; indeed, it is quite common after the basic rate has fallen for an increased swing to persist for a considerable time before the condition completely subsides.

As in temperature observations, the morning readings are the more important. This represents what may be conveniently termed the basic rate, the evening reading indicating the degree of irritability or the amplitude of the diurnal swing.

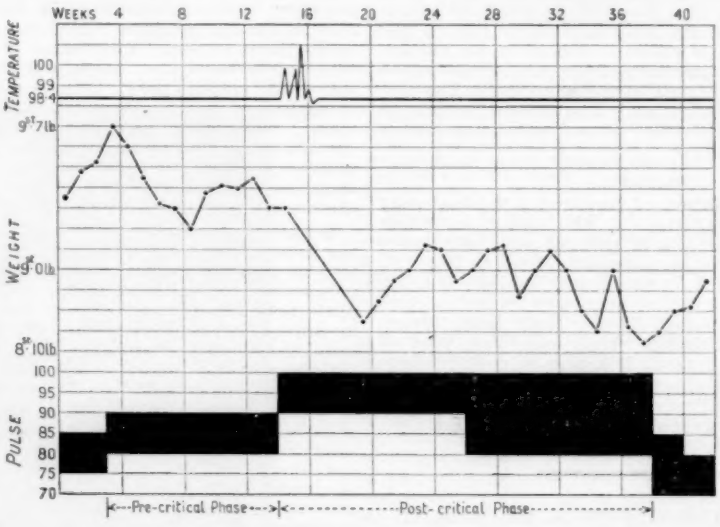
Any toxic condition, such as a mild tonsillitis, or an injection of tuberculin or of a vaccine, may, of course, cause a rise in pulse-rate without a corresponding rise in temperature, and such a tachycardia in which the cause is clear forms a parallel to those of varying duration which occur as part of an undoubted tuberculous toxæmia.

Clinical Illustrations.

One of my patients, a male, aged 22, showed an irregular pre-critical afebrile tachycardia, lasting over a fortnight, and leading to a week's low pyrexia and an hæmoptysis.

In this case a moderate swinging post-critical tachycardia of about nine weeks' duration also followed.

The accompanying diagram illustrates the course of another case and shows the important post-critical tachycardia very clearly. The middle curve is that of the patient's weight, and assuming, as most observers agree, that although increase in weight by no means invariably means improvement, yet loss in weight without change of environment nearly always indicates deterioration, it affords a rough chart of the patient's progress. Below is shown diagrammatically—and, of course, only very approximately—the variations in pulse-note and swing, whilst above is a rough indication of such pyrexia as occurred. The patient, a male, aged 21, had been under treatment for 14 weeks prior to the period shown here. His progress had been quite satisfactory with a weight rising steadily from 8 st. 6 lb. and a pulse swinging consistently between 75 and 85. An hæmoptysis associated with a week's pyrexia indicates the toxic crisis, preceding which is a period of 11 weeks low afebrile tachycardia associated with loss of weight, whilst following is a period of nearly six months high pulse-rate gradually decreasing both in rate and swing.



After seeing a number of these cases it is impossible to avoid the conclusion that in them it is the tachycardia which marks the rise and fall of the toxæmic wave.

Such cases are straightforward enough, but it is often very difficult to come to a speedy conclusion as to the cause when an afebrile tachycardia suddenly begins during treatment or when a patient showing the condition comes under observation for the first time. The evidence furnished by other clinical criteria [1] and the influence of rest and exercise are both of assistance. As regards the former, I have found the facies to be the most reliable aid, but I have not been able to derive much help from the latter owing to the practical difficulties that beset its use as a definite test. When marked the condition reacts to rest in bed, when moderate and subsiding to cautious exercise-grading, any renewal of the tachycardia being taken as an indication for less exercise.

Conclusions.

I have not yet collected sufficient clinical material to warrant any guess at a percentage-figure, but the existence of such cases in early phthisis suggests that just as we find active cases combining pyrexia with a comparatively slow pulse-rate, so also we have these, presumably of the sympatheticotonic type described by Eppinger and Hess, in whom an afebrile tachycardia exists for long periods as almost the sole evidence of activity. Hence, then, while it is, I agree, correct enough strictly speaking to say: "There is no active tuberculosis without pyrexia," an assumption of the contrary "If there is no fever there is no active tuberculosis," or any such statement as "The range of the temperature is the guide to the treatment of pulmonary tuberculosis" [2] seems misleading and not in accordance with the whole of the clinical evidence. On the contrary, the occurrence of this type of case suggests the wisdom of assuming in all cases of early uncomplicated phthisis that, until satisfactory evidence to the contrary is obtained, not only is every afebrile tachycardia a sign of activity, but also that no such case can be considered quiescent so long as it shows a persistently raised pulse-rate, completely apyrexial though its course may have been throughout treatment.

In view of the fact that these cases are almost entirely afebrile, I should like to recur to my opening remark and to put in a plea for more detailed observation of the pulse-rate during the course of early phthisis. In some institutions the pulse seems to be taken once a week only, in others in the case of bed patients only, in many the old type of clinical chart in which the pulse-rate is simply recorded and not charted as a curve, is still in use. Intelligent patients can be taught to take the pulse at least as satisfactorily as the temperature, nor can I think pulse-rate observations in adults as a whole more liable to error, if carefully taken, than those of temperature; the inaccuracies arising from emotional causes — exercise, drugs, &c. —are at any rate no more than those due to atmospheric cold, faulty thermometers, or hurried nurses.

We are all agreed by now that in pulmonary tuberculosis prolonged rest is the key to successful treatment, an opinion strikingly confirmed by the recent radiological work of G. B. Webb,[3] who points out the need of even longer periods of rest than those now usual. The gauging of the requisite amount of rest is in many cases a question of the greatest difficulty for the clinician, and the neglect of any source of information must surely lead to grave errors.

Authorities.—Starling, E. H.: Physiology, 1920. Price, F. W.: Diseases of the Heart, 1918. Bonney, S. G.: Pulmonary Tuberculosis, 1910. Pottenger, F. M.: Clinical Tuberculosis, 1922. Fishberg, M.: Pulmonary Tuberculosis, 1922. Guy, J.: Pulmonary Tuberculosis, 1923. Wingfield, R. C.: Modern Methods in Diagnosis and Treatment of Pulmonary Tuberculosis, 1924.

[1] Tubercle, March, 1924.
[2] Tubercle, September, 1923.
[3] Jour. Amer. Med. Assoc., Sept. 19th, 1925.

A "BAKERS' BED" AT CROYDON.—The Croydon and District Master Bakers' Association has endowed a bed at Croydon Hospital at a cost of £1000. The hospital is in need of a further 150 beds; there are at present 106.

THE LATE DR. LAWRENCE BARNETT.—The death occurred recently of Dr. Lawrence Barnett, who for more than 25 years had practised in Kilburn. A student of University College Hospital, Dr. Barnett qualified in 1884 and graduated as M.D. Lond. three years later. He became house physician at the hospital and afterwards held appointments at the Victoria Hospital for Children, Chelsea, and the Kilburn and Maida Vale Dispensary. Whilst in practice at Kilburn he was elected president of the Willesden and District Medical Society. Dr. Barnett had lately returned from a holiday and succumbed to a brief attack of pneumonia. He leaves a widow, a son, and a daughter.

TRANSCONDYLAR FRACTURES OF THE HUMERUS IN CHILDREN.

BY F. D. SANER, F.R.C.S. ENG.,
SURGEON (AND SURGEON-IN-CHARGE, FRACTURE DEPARTMENT), ROYAL NORTHERN HOSPITAL.

INJURY to the lower end of the humerus in children is of common occurrence, and in a fracture department the transcondylar fracture ranks next in frequency to injuries of the clavicle and radius and ulna, with but little difference in the actual numbers.

For the most part these injuries to the humerus have been described as separations or fracture separations of the lower humeral epiphysis, but it is rare for the epiphyseal line to be actually involved, or for the epiphysis or part of it to be displaced by itself. The transcondylar fracture is transverse in direction and, as the name implies, occurs generally at the level of the condyles or immediately above them; the line of fracture, which is usually somewhat crescentic with the concavity upwards, passes through the olecranon fossa. There is thus a small fragment of diaphysis which, as a rule, is of about the same depth as the epiphysis. The fracture may be incomplete with no displacement, but in the majority of cases it is complete, and the displacement is severe and typical. The whole forearm with the lower humeral epiphysis and the small fragment of diaphysis is carried backwards with tilting of this is, as a general rule, a varying degree of backward displacement in addition.

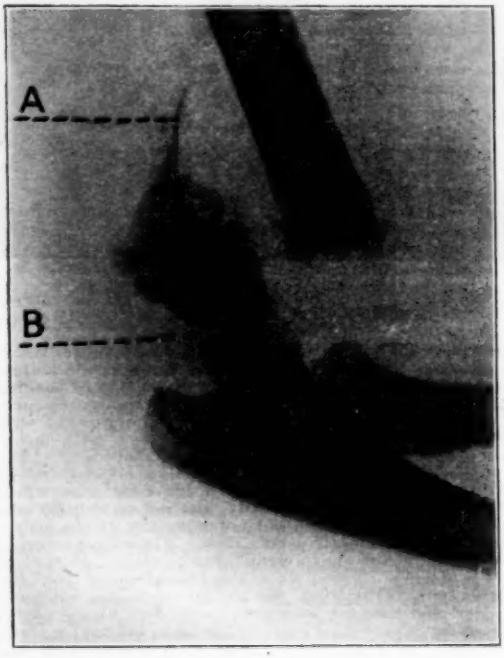
In both types, more especially the former, the periosteum on the back of the humerus is extensively stripped up, while in all cases there is much effusion of blood into the surrounding soft structures, occasionally of such severity as to interfere with the circulation of the hand. On two occasions in my experience gangrene of the fingers has followed such an injury, in one case as a direct result of the tense effusion round the site of fracture, in the other case there was the additional factor that the elbow had been fixed in a flexed position in the presence of much swelling.

The deformity of the elbow is, as a rule, obvious, though the contour of the region may be entirely altered and the bony landmarks obliterated by the swelling from effused blood. An accurate diagnosis of these injuries is impossible without X rays, and radiograms in two planes should be taken at the earliest possible moment and, apart from temporary immobilisation, it is better not to attempt any treatment until a diagnosis has been made. In all injuries in the region of the elbow-joint it is a great help to have control radiograms of the sound elbow for comparison.

Principles of Treatment.

There is probably no region in the body where the attempts of Nature to repair completely a fracture with displaced fragments are so well seen. As shown in the radiogram (Fig. 1), callus is quickly laid down

FIG. 1.



Boy, aged 8. Transcondylar fracture of left humerus with typical displacement, four weeks after injury.
A, Line of callus formation. B, Epiphyseal line.

FIG. 2.

Same case as Fig. 1 after reduction by open operation.

fragment, while the lower end of the long upper fragment of the diaphysis is thrust forwards. In the severe case the upper fragment may be driven through the skin on the anterior aspect of the arm; the lower fragment seldom pierces the skin posteriorly, since the tendon of the triceps forms a strong barrier against this. In other cases the displacement of the lower humeral fragment with the forearm is medial, and while this may be the main displacement there between the fragments, and if left uncorrected the lower end of the shaft is gradually reconstructed, its displaced segment absorbed, and eventually a new diaphysis with its lower end curved backwards is formed (Lane). An arm almost good in function may thus be obtained, but there is always very definite limitation of flexion and extension movements at the elbow. In the same way a lateral displacement, if uncorrected, will be repaired with

eventually a valgus or varus deformity at the elbow.

By whatever means, therefore, reduction of these fractures is carried out in the original instance, an accurate alignment must be obtained to guarantee an arm normal in shape and function. Even with a perfect reduction the process of repair is naturally slow; the callus thrown out mechanically obstructs movements for the time, and until this has been absorbed and the grooves and fossæ of the lower end of the humerus remodelled full movements are impossible. This fact emphasises two very important points in the treatment: first, as already mentioned for a somewhat different reason, the necessity for an accurate alignment, since the greater the displacement in any fracture the greater the amount of callus formed; second, the necessity of avoiding undue activity in the after-treatment.

In all cases in which there is a displacement of fractures reduction by manipulation under full anæsthesia should be attempted as soon as possible. With the upper arm held, the hand or wrist is grasped and steady traction exerted with the forearm as fully extended as is possible, and while the traction is maintained the forearm is slowly flexed on the arm, and the position of flexion secured by a strip of adhesive plaster passed round the wrist and upper arm, wool, and bandage. Such movements are carried out to correct the common backward displacement, for the lateral displacement, while traction is maintained, direct pressure is applied to the fragments and afterwards the arm flexed as before.

It is well to emphasise that the position of flexion per se does not accomplish anything, but when the fracture has been reduced it creates traction on the lower humeral fragment and prevents it again slipping backwards with the forearm.

In the majority of fractures reduction can be obtained by this means provided it is carried out early. The main barrier to reduction is the effused blood, and as this organises it may become insuperable. If a genuine attempt at reduction by manipulation has failed, a second trial is unlikely to be more successful, and an open operation should be advised. This should have for its object a clearance of the blood-clot and a replacement of the fragments; no internal fixation is necessary, the reduction being maintained by the flexed position. In the presence of a tense effusion into the soft tissues, in which there is a danger of interference with the circulation, or likely to be with the elbow fixed in a flexed position, an open operation may become a matter of urgency.

After-treatment.

During the succeeding days the gentlest effleurage is employed over the injured area to assist in the absorption of effused products and the circulation of the arm generally. After a week or ten days the arm may be released to a right angle and carried in a sling, and from now onwards gradually increasing *voluntary* movements are encouraged. Vigorous massage or passive movements are to be strictly avoided. They tend only to irritate, cause more callus to be thrown out, and thus defeat their own object. From the first it should be impressed on the parents that the movements at the elbow are likely to be limited for a considerable time, that this is due to the natural course of repair, not a complication, and provided an accurate alignment has been obtained in the first instance an eventual return of perfect function can be assured. The idea of carrying out forceful movements of the elbow under anæsthesia has, it is to be hoped, passed; such a procedure is directly contra-indicated, as already explained, since the limitation is not due to adhesions in the elbow-joint or between surrounding soft structures, but to callus filling the grooves and fossæ of the lower end of the humerus. Occasionally in children who are unable voluntarily to overcome the spasm of their muscles or are fearful of attempting movement slight passive movements may be employed as a means of suggestion that such are possible.

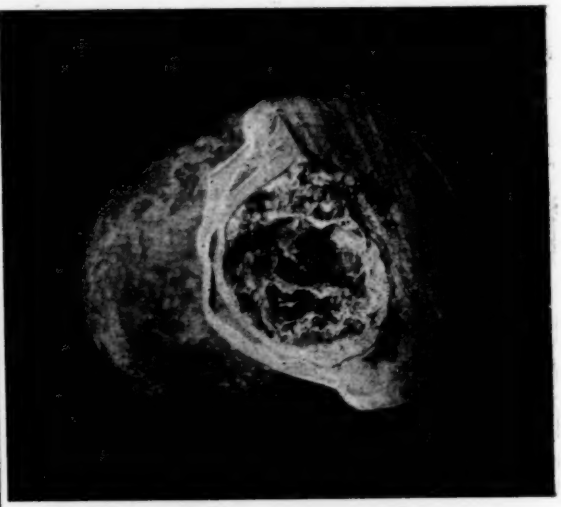
Clinical and Laboratory Notes.

VESICAL CALCULUS WITH PARAFFIN NUCLEUS.

BY ALEX. E. ROCHE, M.B., M.CH., F.R.C.S. ENG.,
CLINICAL ASSISTANT, LATE H.S. AND R.S.O., ST. PETER'S HOSPITAL.

THE interesting account in THE LANCET of July 31st by Dr. Ernest Shaw of a vesical calculus with nucleus of paraffin wax prompts the report of a similar case recently under the care of Mr. Ogier Ward, whom I wish to thank for permission to publish it.

A man, aged 53, was admitted to St. Peter's Hospital on March 9th, 1926, perineal pain being his main trouble. Eight years previously the pain had been experienced on micturition; also slight pain in the penis, and difficulty on micturition. A free interval of two years was followed by a renewal of symptoms, together with retention of urine, such attacks having also occurred subsequently, with intervals of 1 to 21 days. A symptom very suggestive of the presence of a stone in the bladder was that the patient found it easier to micturate when lying on his side or bending forward. There were straining and delay in commencing the stream, which was occasionally intermittent, with terminal dribbling; and there was urgency, with incontinence if early micturition was not forthcoming. The passage of stones or gravel had never been noticed, but he complained of slime and of the bad smell of his urine, which had been red six years previously, and red on and off ever since, more so on exercise, but not especially at the end of micturition; nor had there been clots. Micturition occurred hourly by day, and six to eight times at night. More than eight years had elapsed since the patient could pass the night without micturating. He had no headaches, but backache now and then for six years; occasionally nausea with the pain, but no vomiting; shivers formerly, but not for years.



Photograph of stone (actual size), part of it having been removed to display central irregular mass of paraffin wax.

Condition on Examination.—The tongue was clean and slightly moist, the patient stating that during the last three to four years it became dry, though thirst was normal. He was observed to bend down, with his head nearly to the floor, in an unsuccessful attempt to micturate. Cystoscopy then revealed four ounces of turbid urine, a very œdematous mucosa, and a free stone, which was felt and heard to grate. The prostate felt normal on rectal examination, while, on bimanual examination, a body was felt above the prostate. On March 10th a stone, too large, hard, and smooth for lithotrity, was removed suprapubically by Mr. Ward. After a period of drainage the patient was discharged healed and well on April 5th.

A report by Dr. H. E. Archer states that the calculus (whose present weight, after about a quarter of it has been removed, is 48 gm., and whose original

weight must therefore have been about 64 gm.) is smooth, irregularly oval, pale brown, and very hard, measuring 5·5 by 4·8 by 3·0 cm., and being made up of an outermost layer consisting of ammonium magnesium phosphate + + +, calcium phosphate + +, and magnesium carbonate (a trace); a middle layer of practically the same constituents, and a central core of hard paraffin, having a melting-point of 54° C. Thus the paraffin would not be liquid at body temperature, but it would be pliable, and one can imagine a portion of moulded candle-guttering reaching the bladder by being propelled by another portion lying in the urethra, and manipulated, directly or indirectly, by the patient, the urethral portion being subsequently withdrawn, or passed with the urine, the intravesical portion being prevented from doing so by becoming coiled, or by otherwise sharing in the general difficulty of escape experienced by foreign bodies in the bladder. Though such may be the method of introduction of paraffin wax into the bladder in some cases, interrogation of the above patient revealed another method in the present case, he affirming that, when aged 17 or 18, he had some difficulty in passing water, due to "a bit of a stricture," and that this was lessened by the passage of a piece of solid rubber, about eight inches long, which is described as being like a catheter, "but without a hole in it," this urethral instrumentation being performed "scores of times," and the instrument, previously greased with warm paraffin wax from a lighted candle, remaining in the urethra for ten minutes at a time. The method described by the patient is probably a correct account of the manner in which the paraffin reached his bladder, small quantities of wax being left there on each occasion, though the motive was almost certainly sexual, not urinary.

One wonders whether foreign bodies, such as paraffin wax, may not compose the nuclei of bladder stones less rarely than has been supposed or reported, and whether their comparative rarity may not be partially explicable by the failure to transect and analyse, where possible, all stones removed from the bladder by lithotomy, and further accounted for by the adoption of the operation of litholapaxy.

A CASE OF GENERAL PARALYSIS WITH BENIGN TERTIAN MALARIA.

BY GEOFFREY T. BAKER, *M.C.*, L.M.S.S.A. LOND.,
ASSISTANT MEDICAL OFFICER, KENT COUNTY MENTAL HOSPITAL, CHARTHAM DOWN, NEAR CANTERBURY.

THE interest in this case would appear to lie in the fact that the patient had malaria of long standing and that general paralysis developed in spite of this, and also that a further severe relapse of malaria in no way hindered the progress of the cerebral condition to a fatal termination.

A man, aged 39, was admitted to the Kent County Mental Hospital on Jan. 18th, 1926, with general paralysis and a history of malaria and heat-stroke. The blood and C.S.F. were taken on Jan. 21st, 1926, and both showed a complete positive Wassermann reaction. The patient was confused, quite disorientated, wet and dirty in habits, much hallucinated, and very restless. By the beginning of April he had quieted down sufficiently for a course of Stärcke treatment to be begun, but before the fourth injection could be given he had again become very restless and troublesome, and the treatment had to be abandoned. There was then little change in his condition until August 1st, when he had two bouts of fever rising to 103° F., with one day intervening, when his temperature was subnormal. The blood was examined and benign tertian malarial parasites were found to be present. Fifteen typical rigors followed with one or two atypical ones, and, as there was no improvement in his mental condition, quinine treatment was commenced. On Sept. 6th the patient died, having previously developed retention of urine and multiple syphilitic sores.

I am indebted to Dr. Abdy Collins, medical superintendent, Chartham, for permission to publish the notes of this case.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF DERMATOLOGY.

A MEETING of this Section was held on Oct. 21st, Dr. J. H. SEQUEIRA, the President, being in the chair.

EXHIBITION OF CASES.

Dr. G. B. DOWLING showed a case of lichen nitidus in a woman of 28 who had complained for a year of a papular eruption of various parts of the body, with very slight irritation. Over the knees, elbows, and front of the wrist these became confluent, forming brownish-red patches, rather like lichenification. Friction played a part in the production of these areas. Histologically there was characteristic subepidermal infiltration with a giant cell here and there. The erosion from beneath amounted in the confluent areas almost to complete disappearance. He also showed a case of syphilitic macular atrophy in a man of 44 who had had primary syphilis with phagedena 24 years ago, followed in three months by a generalised eruption of raised pink spots. A few months later they assumed their present form—a large number of symmetrical lenticular elevations, round or oval, distributed mainly along the lines of cleavage on the back, chest, abdomen, and shoulders. Some were firm, others soft with wrinkles like cigarette paper. There was a definite resemblance to some cases of Buzzi's disease, which was no more than a macular atrophy, not necessarily due to syphilis.

Dr. H. HALDIN-DAVIS showed two cases of pigmentation. One was argyria in a woman who had taken silver nitrate pills thrice daily for a year 20 years ago and had been in her present state ever since. Argyria was very capricious in its incidence; in another case it had developed after the use of protargol swabs for six weeks; this, however, disappeared in three years. His second case, "pigmentation of unknown origin," corresponded with a type described by Barber as "poikiloderma pigmentare reticularis," although in this instance no atrophy had been noted. He regarded the condition as some sort of vasomotor disturbance, associated with the menstrual trouble of six years' standing.

Dr. PARKES WEBER showed a case of von Recklinghausen's disease which he had presented to the old Dermatological Society in 1905 in its earliest pigmentary "forme fruste." It was now fully developed. His second case was one of pigmentation of the thigh associated with varicose veins and a condition rather like "multiple idiopathic hæmorrhagic sarcoma" (Kaposi). The patient was a fat plethoric Jewess of 47, who last winter developed irregular, raised, rough, purplish patches with much itching. Adjoining these was an irregular area of brown pigmentation which had appeared a month earlier and never itched. The Wassermann was negative. Dr. A. M. H. Gray had examined sections of an excised nodule and thought them strongly suggestive of lichen planus. Sir Jonathan Hutchinson had described lesions resembling "multiple idiopathic hæmorrhagic sarcoma" as occurring in plethoric and gouty individuals. His third case was a boy of 3 with hypoplasia (aplasia) pilorum moniliformis of the scalp, which was rough and in some parts scaly and red, with stumpy hairs. Microscopically the hairs were beaded with alternate constrictions and spindle-like enlargements. Some of the eyebrow and eyelash hairs were similarly affected. The case was typical. Dr. Weber suggested that there might be a series of cases connecting congenital alopecia on the one hand and MacLeod's "ichthyosis follicularis" on the other, with congenital hypoplasia pilorum moniliformis in the middle. This was a congenital condition allied to nævi.

Dr. H. W. BARBER showed a case of lichen spinulosus in a boy of 12. The eruption was first noticed ten

weeks ago on the legs, and later it appeared on the arms, neck, face, and trunk. It consisted of follicular papules, the colour of normal skin or a little red at the base, with a projecting horny spike. This case corresponded with the 14 cases described by Peyri Rocamora in 1922, in which there was always a resistant stomatitis. In this boy there had been a trace of something like perlèche at the angles of the mouth and a few red spots on the mucosa of the cheek. The relationship of lichen spinulosus to folliculitis decalvans and of both to lichen plano-pilaris had to be considered.

Dr. E. GRAHAM LITTLE showed a case of nodular leprosy which he had brought before the Section in May last as one of the most acute cases he had ever seen; a very extensive eruption had appeared within ten days. Instead of returning to the East, as advised, the patient had come under the care of Dr. Hasson, whose treatment had resulted in an amazing improvement. So complete was the involution of the disease that the bacilli could no longer be found in the nose or in the artificial blisters.

Dr. J. HASSON then described his treatment with stock vaccine made from the blisters of many patients.[1] This patient had had 53 injections twice or thrice a week, mostly intravenously, and some subcutaneously. In a fortnight æsthesia had reappeared. After six weeks he was as "cured" as it was possible to pronounce any man cured. Dr. Hasson had now obtained apparent cure in 45 cases.

Dr. GRAHAM LITTLE then drew attention to a large coccus isolated from three different cases, one of glossitis migrans and the others more like a leucoplakia of the lichen planus type. This organism had been grown with great difficulty anaerobically and was unfamiliar to the bacteriologists of St. Mary's Hospital. His third case was one of lupoid infection of the skin following a successful course of electrolysis for removal of hair. There had been no scarring at the time, but the lesion appeared two years later.

Dr. H. MACCORMAC showed a Covent Garden porter, aged 25, who was accustomed to carry loads on his head and who had developed a bald spot very like an ecclesiastical tonsure and with definite lichenisation. The patient assured him that the condition was not uncommon. He proposed to name it "Covent Garden tonsure."

Dr. J. H. T. DAVIES showed a case of lichen planus confined to the mouth.

Prof. C. RASCH, of Copenhagen, then contributed

SOME HISTORICAL AND CLINICAL REMARKS ON THE EFFECT OF LIGHT ON THE SKIN AND SKIN DISEASES.

He began by condemning the attitude of those who regarded clinical medicine as a played-out science; modern medicine rested equally on two supporting pillars—clinical and experimental work. The first observations on the effect of sunlight on the skin were made by Everard Home in the Philosophical Transactions for 1821. Home had exposed the backs of his hands to the sun with a thermometer on each; one was uncovered, the other had a covering of black cloth. The former hand was scorched on each occasion, the latter was unaffected, but its thermometer registered a much higher temperature. He concluded that the black rete mucosum of the negro was a defence against the sun's rays. His experiments were confirmed later by Humphry Davy's brother John. Their experiments entitled them to the honour of the discovery that the power of the sun was due to light and not to heat.

The Effects of Light on Abnormal Skin.

Willan in 1798 had described an "eczema solare," and other sun-produced lesions were noted by Rayer (1835), Bazin (1860), Kaposi (1870), J. Hutchinson (1878), and Veiel (1887). In 1906 Dubreuilh, of Bordeaux, had stated that most of the epitheliomata of the face and so-called senile alterations of the skin were produced by the light of the sun, and his conclusion had been foreshadowed by Robert Bowles in 1893, who had remarked that if the sun's rays would produce sunburn, erythema, and blistering they were clearly capable of producing deep and intractable ulceration of a low and chronic nature. More recently "permanent freckles" had been described by J. H. Sequeira (1911) and "war melanosis" by Riehl (1917). Between some of these conditions there were transition stages; Hutchinson's prurigo, for instance, could not be kept distinct from the polymorphic and eczema-like eruption described by the speaker. He believed, in fact, that all these eruptions should be included under the one term, "chronic polymorphic light dermatitis." Individual skins reacted to the itching caused by light with papular, urticarial, erythematous, or lichenoid lesions, and secondary infections might supervene, and on rare occasions small necroses might represent a transition to the hydroa vacciniformis of Bazin. These light eruptions might be hereditary and were very common among blondes—e.g., in Denmark out of 31,000 patients in five years no less than 230. had a light-lesion. It might be surmised that the itching was the pathogenic factor in the production of a rash.

Hydroa Vacciniforme and Porphyrinuria.

The speaker believed that two diseases were being confused under this name. One was the affection described by Bazin; the other was a special symptom-complex including porphyrinuria, large pemphigus-like blebs on the face, ears, and hands leading to gangrene, and atrophic processes in the fingers reminiscent of scleroderma or Raynaud's disease. This condition was first attributed to light by Prof. McCall Anderson in 1898.[2] Porphyrinuria was not always associated with sensitiveness to light, and the administration of sulphonal and trional did not cause skin trouble. Possibly the real cause of all the symptoms was some unknown endocrine factor. The significance of porphyrinuria in light diseases and the relation of these conditions to epidermolysis bullosa hereditaria needed further investigation. Alcoholism also seemed to be a sensitiser for the development of light rashes.

Other Diseases Connected with Light.

In Denmark they had had two cases each of xeroderma pigmentosum, war melanosis, and colloid degeneration of the skin; pellagra was unknown. The chronic redness and thickness of the skin of the neck described by Jadassohn and Nikolsky was common, as were senile degeneration of elastic tissue and other so-called "senile" lesions.

Light in Other Diseases.

It was an old experience that the rash of small-pox healed without scars if the patient were kept in the dark, and this treatment ought to be used in all cases. Pityriasis simplex was often irritated and was sometimes made eczematous by light. Acute eczema and many kinds of artificial dermatitis tended to become localised in the sites of chronic changes due to light. For instance, sulphur or fur dermatitis might be localised in the sterno-clavicular triangle, although the exciting agent had spread over the whole chest. Rosacea was greatly aggravated by light; cases of this disease could profitably be divided into three groups: (1) rosacea cum acne, curable with sulphur; (2) rosacea cum pityriasi, curable with tar; and (3) rosacea cum acne et pityriasi, curable with sulphur plus tar (ichthyol). Lupus erythematodes might be caused by light and was decidedly aggravated by it; the lesion was often limited by clothing or ornaments. Tuberculosis and light were the most important internal and external causes respectively. The fresh eruptions disappeared rapidly if the patient were put to bed in the dark. Other skin diseases aggravated or caused by light were dermatitis herpetiformis, Besnier's prurigo, purpura, and erythema multiforme.

[1] THE LANCET, 1926, i., 234.

[2] British Journal of Dermatology, January.

Skin Disease Improved by Light.

Few skin conditions benefited from light, and the value of the general light bath was usually due to its action on the organism as a whole. Acne vulgaris, secondary syphilitic infections, elephantiasis, and lichen planus might be benefited, and light prevented the development of a papular syphilitic lesion. Even in these cases, however, it seemed that pigmentation played a part and that the curative effect was not purely local.

It was a common mistake to think that as much light as possible was good for all people and all diseases.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

A MEETING of this Society was held in Liverpool on Oct. 15th, Mr. W. GOUGH (Leeds), the President, in the chair.

Miss H. M. DUVALL (Liverpool), on behalf of Prof. E. E. GLYNN and herself, described a case of

Rupture of the Bladder during Labour.

The patient was a primigravida aged 29, and, during her pregnancy, had been a regular attendant at the antenatal clinic attached to the hospital. Her pelvic measurements were normal, and so was the urine, which for some time had been tested weekly.

On admission (April 27th) she was at full term; the os was one finger dilated, the head well down in the pelvis, and the position left occipito-anterior. During the next three days she had intermittent labour pains. The membranes ruptured at 6 P.M. on May 1st, and the os was three-quarters dilated at 8 P.M. At 3 A.M. on May 2nd the patient is related to have given a piercing shriek, and complained of acute abdominal pain. The nurse felt the uterus, and there was no contraction, but the patient was rather cold and clammy.

After this the patient became somewhat hysterical, and the house surgeon was sent for at 6.30 A.M. As the labour had been long, and the interest of the child seemed to demand it, low forceps were applied under chloroform anæsthesia, and the patient easily delivered of a living male child weighing 6 lb. 5 oz. There was a perineal tear of the second degree, and this was repaired. The third stage occupied one and a half hours, and the placenta and membranes were delivered by manual expression. The condition of the patient was then considered satisfactory. The patient passed urine voluntarily just before the anæsthetic, and no urine was obtained on the passage of a rubber catheter before the application of the forceps.

Her condition gave rise to no anxiety during the next 24 hours, but as she passed no urine during that time, she was catheterised, and 8 oz. of "smoky" urine, which is said to have contained no blood or albumin, was withdrawn. On the following day she passed 8 oz. of urine voluntarily at 2 A.M., and 6 oz. again at 2 P.M. By the evening she had become very ill, the complexion sallow, the temperature 100·2° F., the pulse rapid and almost imperceptible, and the respirations quickened. The abdomen was much distended and very tympanitic, and there was pain in the left iliac region. The usual restoratives were given, but she was much worse by the next morning, with a frequent brownish-green vomit and incontinence of fæces. She died three days and five hours after delivery.

At a post-mortem examination made seven hours after death the subcutaneous fat of the abdominal wall was found to be fully three to four inches thick, which had hindered accurate diagnosis of the abdominal condition during life. The peritoneal cavity held about six pints of a turbid and slightly blood-stained fluid, smelling strongly of urine and containing large flakes of recent fibrin. The intestines were distended to about double their normal size, and the peritoneal coat was injected. On examining the bladder, a small oval perforation, which would just admit the points of a Spencer-Wells forceps, and the edges of which were gangrenous, was discovered on the posterior surface about midway between the fundus and the utero-vesical reflection, and half an inch from the mid-line. Radiating from the hole were three rents involving the serous and muscular coats, but not the mucous membrane. When the bladder was slit open from the front, the perforation was seen to be surrounded by an area containing numerous small hæmorrhages. Apart from this the lining epithelium appeared to be normal, as were also the ureters and their orifices. The kidneys and other organs showed no evidence of disease. The uterus was uninjured except for a deep right-sided cervical tear.

The cause of death in this case, said Miss Duvall, was undoubtedly rupture of the bladder followed by peritonitis. When and why had this accident occurred? It must be a very unusual one, as after a good deal of search she could only find two cases recorded in which intraperitoneal rupture occurred actually during the course of a full-term labour.[1]

"The wall" of the uterus in the present case, said Miss Duvall, was somewhat thinner than normal; the thickness of the muscular and mucous coats was just over 2 mm., whereas the normal measurement was 6·8 mm. There was no cystitis, the muscle was not diseased, and there was no inflammation. The situation of the lesion made direct injury by the forceps unlikely. The presence of distension at any time during the labour was not shown in the history, but the first stage had been long, and the patient might not have been properly emptying the bladder throughout. The temperature chart was consistent with an ingravescent sepsis. The amount of urine obtained after delivery was only 22 oz. in three days, and it was curious to note that the patient had been able on two and possibly three occasions to pass urine voluntarily, presumably after rupture. In view, however, of the very small leak, this could not be considered an impossibility.

In the opinion of Prof. Glynn and Miss Duvall, all these facts pointed to the rupture having occurred prior to or at the time of delivery, the cause being increased intra-abdominal pressure due to the pains of labour on a bladder probably over-distended, and therefore weakened, but certainly not otherwise diseased.

The PRESIDENT considered that the rupture occurred when the patient cried out.

Prof. BLAIR BELL (Liverpool) thought there was no hysteria about the case, that the smoky urine had been of great significance, and that measurement of the urine would have been of aid in diagnosis.

Dr. J. W. A. HUNTER, with acknowledgment to Dr. W. Fletcher Shaw, gave an account of

A Case of Abdominal Pregnancy.

The patient was aged 30 and was 3-para. She was admitted to St. Mary's Hospital, Manchester, on August 23rd last with the following history.

Her last menstrual period was on March 16th, and was followed by several weeks of irregular bleeding for which she was curetted in one of the outlying hospitals, a diagnosis of incomplete abortion having been made. After curettage the bleeding ceased, and she was sent home, but shortly afterwards she noticed a gradual increase in the size of the abdomen. About the beginning of July she had a sudden attack of acute pain in the abdomen with sudden enlargement of the swelling; accompanying the pain were recurrent attacks of vomiting and faintness. During the six weeks before admission there was progressive abdominal enlargement with increasing tenderness and recurrent attacks of severe abdominal pain often accompanied by vomiting. Six days before admission there was slight loss of blood from the vagina. Beyond these, increasing frequency of micturition and gradually increasing constipation were her only symptoms.

On admission she was rather pale, collapsed, and obviously in considerable pain. Her pulse was small and rapid, the rate varying between 120 and 140, and the temperature was 100° F. Examination of the abdomen showed it to be enlarged to the size of an eight months pregnancy, the tumour extending almost to the ensiform cartilage. The swelling tended to occupy more the left side of the abdomen than the right, and was hard, rather fixed and extremely tender, the whole picture closely resembling that of a concealed accidental hæmorrhage. On palpation it was possible to elicit fluctuation in the upper left portion, but the mass in the right iliac fossa was quite hard and solid. Percussion did not show any dullness in the flanks, and on auscultation no fœtal heart sounds or movements could be heard. Vaginal examination was unsatisfactory on account of the extreme pain and tenderness, but suggested a firm mass continuous with the cervix occupying the lower right quadrant of the abdomen, and a large cystic mass inseparable from it above and to the left.

[1] Jour. Obst. and Gyn., vol. vi., p. 354; and Trans. Obst. Soc. Lond., vol. xlix., p. 171.

The diagnosis lay between concealed accidental hæmorrhage and a twisted ovarian cyst complicating early pregnancy. The possibility of an abdominal pregnancy was considered, but rather discounted in view of the previous curettage and absence of other signs.

The patient was kept under observation for 24 hours, but did not improve; in fact, she became rather worse. operation was then decided upon, a diagnosis of twisted ovarian cyst complicating early pregnancy having been made.

On opening the abdomen a large rather thick-walled cyst was seen almost filling the peritoneal cavity, which also contained a large amount of recent fluid blood and old blood-clot. On extending the incision the cyst was seen to arise from the left broad ligament, which had been stretched and lifted up, while the uterus—enlarged to the size of a three months pregnancy—was closely apposed on the right side. On attempting to separate the cyst it was found to be adherent to the abdominal wall in front and to the omentum and small intestine above and behind, and during this separation the anterior wall suddenly gave way and a large quantity of liquor, followed by a living child, came out. The gestation sac was then seen to be composed of a much stretched-out broad ligament anteriorly, while posteriorly it had burrowed under and lifted up the cæcum and mesentery of the small intestine; the right colic artery was running in the wall of the sac. The placenta was hurriedly removed, and the sac packed with gauze and marsupialised. During removal of the placenta there was very little bleeding, but there was considerable hæmorrhage in the abdominal cavity, probably from a torn branch of the right colic artery.

After operation the patient was very collapsed and failed to respond to treatment, dying shortly after return to the ward. The child, weighing 2½ lb., was quite normal and lived for 14 days.

The so-called incomplete abortion, said Dr. Hunter, for which the patient had been curetted was probably an early ectopic gestation; very possibly rupture of the sac into the left broad ligament had occurred during this manipulation. The associated hydramnios almost excused the mistake in diagnosis, for even when the cyst was exposed it was impossible to palpate the fœtus through its walls. To avoid a fatal result had been very difficult in view of the way in which the sac had displaced the mesentery and bowel. Perhaps incision of the sac, emptying of the contents and immediate packing would have given the one chance of a successful result.

Dr. J. H. WILLETT (Liverpool) said that he considered it safer to leave the placenta, though recovery would be tardy.

Dr. D. DOUGAL (Manchester) recalled a case of full-time ectopic pregnancy, in which the placenta was removed and the patient made a good recovery.

Dr. C. P. BRENTNALL (Manchester) described a case of abdominal pregnancy at four months.

Specimens and Cases.

Dr. BRENTNALL showed slides illustrating an endometrioma of the anterior abdominal wall in a woman of 37. The tumour was the size of a filbert and was firmly embedded in the rectus muscle. He said that he had not found any recorded instance of a growth of this kind being situated so far from the uterus. The woman had had no previous operation, and the fact that the ovaries were not adherent suggested that they had not acted as an intermediate host for the spread of the tumour over the peritoneal cavity. There was no chocolate fluid in the tumour and the umbilicus was normal.

Dr. H. LEITH MURRAY (Liverpool) showed a specimen of primary carcinoma of the appendix, emphasising the fact that such a growth might present itself as a very inconspicuous lesion.

The PRESIDENT reported a case of labour obstructed by a diverticulum of the rectum.

Prof. BLAIR BELL (Liverpool) described two cases of bilateral squamous-celled carcinoma of ovaries and peritoneum, subsequent to vaginal hysterectomy for carcinoma of the cervix, and to carcinoma of cervix treated by radium.

Dr. J. W. BRIDE (Manchester) reported two cases of malignant disease in association with genital prolapse.

Reviews and Notices of Books.

SIR JAMES MACKENZIE.

The Beloved Physician, Sir James Mackenzie. A Biography. By R. MCNAIR WILSON. London: John Murray. 1926. Pp. 316. 12*s*.

Dr. Wilson has written a readable biography of one whom he loved as a man and whose genius he admired with whole-hearted enthusiasm; and indeed Mackenzie was one who deserved to inspire these sentiments, for he was a good friend, a most helpful teacher, and one who threw a flood of light upon the dark places.

James Mackenzie, like many of his famous compatriots, came of good Highland farming stock. He was born at Scone and educated first at the Perth Academy, where he wondered, as many at other schools have done, why his teachers set so much value on memory and so little on reason. He left school at the age of 15, when his boyish fancy was one day attracted by the coloured jars in a chemist's window and he determined to become a chemist. Accordingly he was apprenticed, When, however, he came to work he was as much disillusioned with the duties and with the gorgeous coloured jars as was the well-known Rosamond of Miss Edgeworth, and at the end of his apprenticeship he entered Edinburgh University as medical student. Soon after qualifying he became assistant in the firm of two medical men in Burnley, Dr. William Briggs and Dr. John Brown. This was in 1879, and in the course of his practice he met with the case which was to determine his life's work. It was that of a young woman who died from heart failure during labour, and Mackenzie asked himself whether, if he had had a wider knowledge of heart affections, he could have foreseen and possibly averted the tragedy. So he took hundreds of tracings with a Dudgeon sphygmograph, and also others of the venous pulse in the neck with a filament of straw stuck to the vein writing on smoked paper, which crude device was followed in time by an ingenious polygraph devised by himself. Years of study convinced him that every murmur of the heart was not necessarily a sign of disease, but that a heart in which a murmur was present could do its work perfectly well so long as it was not over-driven. The outcome of all these researches was, as every medical man knows, the discovery of the conditions known as auricular fibrillation and heart-block.

Of the coming of the Burnley practitioner to London, of his welcome by the College of Physicians and the Royal Society, of his success and honours, an account must be sought in Dr. Wilson's pages. Here also will be found the reasons for Mackenzie's dramatic resolve, when at the height of his fame, to give up London and go to St. Andrews, there to devote the rest of his life to clinical research on the early symptoms of disease. The building in which the research was carried on was called the St. Andrews Institute of Clinical Research, now known as the James Mackenzie Institute, and remains alike as a memorial to his name and as a seat for the investigations which the broad philosophy of his outlook made him feel to be imperative. Despite all the stress laid upon family and personal history, both in institutional teaching and in private note-books, since clinical medicine began to be systematised some hundred years or more ago, the fact remains that the beginnings of disease processes did not receive until recently proportional attention. In Mackenzie's conception of an Institute devoted to clinical investigation we see a formulation of the fundamental truth on which he insisted that medicine is a special branch of science dealing with a special group of phenomena, where the clinical investigator must apply the methods which are specially suitable for his purposes. It was essential to this conception that the knowledge derived, mainly from general practice, by the watching of ill-health over a long course of years should be categorised and tested, and along the lines thus suggested

the work at St. Andrews is now proceeding. It is one of the ironies of fate that soon after he went to St. Andrews Mackenzie knew for a fact that he was stricken with angina pectoris, and from this disease he died on Jan. 25th, 1925.

A book which will interest not the medical man alone, but also any intelligent layman. It is clearly and often eloquently written, and good reasons are given for the striking title.

LA GRIPPE.

By DR. PIERRE LEREBOULLET, Professeur agrégé à la Faculté de Médecine de Paris, Médecin de l'Hôpital des Enfants Malades. Paris: Baillière et Fils. 1926. Pp. 144. Fr.8.

MOST of the books dealing with influenza are either treatises on Pfeiffer's bacillus or discussions of that medley of infections to which the layman has given this name. Dr. Lereboullet's modest little volume is a refreshing clinical and pathological study. Pandemic influenza attacks the world with such extreme violence and at such rare intervals that a new generation of medical practitioners is overwhelmed at a time when their experienced predecessors are unable to help them. Between pandemics it is next to impossible to obtain first-hand knowledge, and therefore we heartily commend to medical students this excellent account of a dreadful disease.

EPILEPSY.

A Functional Mental Illness. By R. G. ROWS, M.D. Lond., Pathologist and Medical Officer, County Mental Hospital, Prestwich, Manchester; and W. E. BOND, M.R.C.S. Eng., L.R.C.P. Lond., a senior medical officer to the Ministry of Pensions. London: H. K. Lewis. 1926. Pp. 138. 8*s*.

THAT older views on the nature of epilepsy have been to some extent modified by war experiences is doubtless now a truism; it can scarcely be questioned, at any rate, that types of epileptic phenomena then occurred with no little frequency which were much less often encountered in ordinary civilian practice. Yet it would be erroneous to suggest that fits in which a psychogenic factor was conspicuous had up to the time of the war been unknown; on the contrary, the variety was fully recognised, if somewhat neglected. In a large proportion of war cases of epilepsy so obvious seemed the underlying psychological mechanism that it was only natural that attempts should be made to unify all epileptic phenomena on that basis and to find in each and every manifestation of the condition the action of a mental agent. The late Dr. R. G. Rows has left on record his conclusions, based on abundant war material, and his formulations are given in the book without anything having been altered by his collaborator.

Briefly, it is Dr. Rows's aim to demonstrate that epilepsy is one and indivisible, and that behind its simplest no less than its most complex exteriorisation lies the action of a mental factor. This factor is a disturbance of consciousness associated with an emotional state; "in every instance" this emotional state can be detected, and the phenomena of the fit are a reaction to express the emotion. This contention is declared to be substantiated by a consideration of the "meaning" of the movements in convulsions, and an attempt is made to support the argument on physiological grounds—viz., that the vasomotor-sympathetic system is implicated in fits and that its relation to the emotional sphere is acknowledged. Holding these views the authors treat their cases by "explanation, exploration, and re-education," and categorically state that drugs "have no legitimate place in the treatment of this or any other form of mental illness," unless as a temporary measure.

While there is something to be said for the hypothesis that disorders at the mental level are often enough responsible for somatic symptoms, the universal application of it to the phenomena usually called epileptic, whatever their clinical type, raises more difficulties than it settles. The authors slur over the obvious hindrance to acceptance that resides in the commonplace variety of infantile convulsions by saying that "attention must be given to the little control over the emotions possessed by the child"; what of the new-born infant, whose cortex may discharge for hours after injury in parturition? What of Jacksonian epilepsy, which may for years be limited to one particular muscular group, as in epilepsia partialis continua? We are convinced of the applicability of the authors' conclusions to certain cases called epileptic; we are equally unable to find in them a plausible explanation of other types of the syndrome that come under the clinician's notice daily.

DIAGNOSIS.

A Manual of Normal Physical Signs. By WYNDHAM B. BLANTON, B.A., M.A., M.D., Associate in Medicine, Medical College of Virginia. London: Henry Kimpton. 1926. Pp. 215. 12*s*.

THERE is something to be said for a brief compilation of the normal results of physical examination of healthy individuals such as is presented in this book. At the same time it must not be forgotten that the step from the normal to the abnormal is an easy one, the normal percussion note in one region of the chest, for example, being abnormal when obtained elsewhere, and therefore the complete divorce of the normal from the abnormal is neither possible nor likely to be satisfactory. Dr. Blanton's idea in preparing his book, however, was to help the beginner, and for this purpose he introduces a chapter on sound and endeavours to deal with the subjects of percussion and auscultation on a physical basis. This attempt has not been very successful, and there are certain errors in his book which render its value for beginners very doubtful. The right apex is described as a normally dull thoracic area (p. 57), and inspiration in this same situation is said to be less intense as compared with the left (p. 74). The account of bronchial breathing is poor, no reference being made to the pause occurring between inspiration and expiration. Râles are classified as moist and dry, no mention being made of rhonchi (p. 79). When the circulatory system comes to be considered the third heart sound is given as prominent a position as the more usual first and second sounds (p. 116), and this is bound to confuse the young student; nor is the description of the method of obtaining the diastolic pressure lucid.

PEDIATRICS.

Diagnosis of Children's Diseases. Third (German) edition. By Prof. E. FEER, Zurich. Translated by C. A. SCHERER, M.D. London: J. B. Lippincott. 1925. Pp. 551. 35*s*.

THE third edition of Prof. Feer's work, which has achieved notable success on the continent, has now been brought within reach of the English reader by the enterprise of Dr. Scherer. The book is intended to be a guide to diagnosis, and is not concerned with systematic description or with treatment of diseases; symptoms are described and the differential diagnosis of their possible causes is discussed in detail. Prof. Feer deprecates the tendency to allow laboratory tests to supersede, instead of to follow, thorough clinical examination of the patient, and the reader will be impressed throughout the book with the paramount importance of detailed clinical observation in this branch of medicine. The illustrations are numerous and include colour-plates of the exanthemata. As a supplement to the systematic text-books this work should be of great value to students and practitioners.

Dystrophien und Durchfallskrankheiten im Säuglingsalter. By Prof. LEO LANGSTEIN. Leipzig: Georg Thieme. 1926. Pp. 207. M.14.

THE principle underlying this work is that both the dystrophies and diarrhœas of infancy can be

successfully treated by simple methods provided that an accurate estimate of the clinical and ætiological factors is obtained. The book consists of two parts, dealing respectively with dystrophies and diarrhœas. The classification and differential diagnosis of different types are presented in a concise and lucid way and accompanied by accounts of individual cases. Many of these are illustrated by photographs and charts of feeding and weight. The method of treatment which the author advocates has the great advantage of being extremely simple, consisting almost entirely in the use of human milk, buttermilk, and diluted cow's milk with added carbohydrate. It has also the practical disadvantage that a large measure of its success seems to depend upon the use of expressed human milk, which is not accessible to those who work under less ideal conditions. Much emphasis is laid on the dangers of dehydration and the importance of combating it; curiously little is said about the use of intraperitoneal infusions in accomplishing this end. Careful attention to quantitative requirements and avoidance of overfeeding occupy a prominent place in the author's régime. Prof. Langstein is impressed with the extent to which practitioners are deterred from scientific treatment of these disorders by the constantly changing stream of complicated methods which the literature of the subject presents. His book was written with the object of bringing the practitioner into touch with the methods of diagnosis and treatment of infantile malnutrition which are evolved from the experience of pediatrists working in special institutions, and it may be recommended as a successful attempt to simplify a complicated subject.

DIETETICS.

What's Best to Eat? By S. HENNING BELFRAGE, M.D. Lond., M.R.C.S., L.R.C.P. With a Practical Supplement by LUCY H. YATES, M.C.A. London: William Heinemann (Medical Books), Ltd. 1926. Pp. 199. 7*s.* 6*d.*

The Importance of Diet in Relation to Health. The People's League of Health Lectures. London: George Routledge and Sons, Ltd. 1926. Pp. 130. 3*s.* 6*d.*

Food. Its Composition and Preparation. Second edition, revised. By MARY T. DOWD and JEAN D. JAMESON, Teachers of Household Science, Washington Irving School, New York. London: Chapman and Hall, Ltd. 1925. Pp. 177. 7*s.* 6*d.*

Dr. Belfrage is an ardent disciple of the "intestinal stasis" school, and his new book on dietetics therefore owes a great deal to the teaching of Sir William Arbuthnot Lane. He sets out in some detail the principles of diet, attaching great importance to the mineral salts and the vitamins contained in food. It is not easy to follow exactly how the terrible poisons alleged to be generated in intestinal stasis get into the blood stream, as it is stated they do (p. 77), for in the first place the passage of absorbed foodstuffs to the liver is described (p. 72), and secondly the detoxicating action of this organ in the case of ptomaine is carefully emphasised (p. 83). The intelligent reader may well ask what is happening to the liver when the poisons produced in intestinal stasis arrive. The answer that the liver cells get overworked and break down is a mere speculation with little or no experimental proof. Naturally the list given of diseases caused or predisposed to by intestinal stasis is a long one, and the author also appears to believe that relative deficiencies in the vitamins of food "are very common and lead eventually to very serious damage" (p. 26), a view which is not held by most dietitians. Another point calling for criticism is the sweeping recommendation of "roughage" for children "from their earliest years" (p. 75), since it has been shown, for example, by G. F. Still, that brown bread, coarse oatmeal, and the like, are frequent causes of "indigestion" and abdominal pain in children. The practical supplement of recipes and cooking is good, and it is a pity that the value of the rest of the book is impaired by too one-sided an attitude to health and disease.

The lectures delivered in 1925, under the auspices of the People's League of Health, have been published in book form. Of these lectures that by Sir D'Arcy Power on the history and geography of mankind's feeding habits is the most interesting, because it contains almost the only new material which distinguishes this book from many others published during the last few months. Hippocrates is reputed to have said that all diseases commence in the stomach, and Sir D'Arcy Power's lecture goes to show that as civilisation has advanced this dictum has become more strikingly true, although there are signs at the present day of a reaction against our somewhat gross habits of eating and drinking. The other lectures in this volume, on the general principles of diet by Dr. Leonard Hill, on vitamins by Prof. W. D. Halliburton, on infant feeding by Dr. H. Scurfield, on feeding and breeding of cattle by Dr. M. J. Rowlands, and on food preservatives by Prof. W. E. Dixon, are consistent in their high standard of intelligent and balanced argument.

The American school text-book is also characterised by its well-arranged and well-balanced material. The authors approach the subject in a scientific manner, classifying, explaining, and describing food in its raw and cooked state and dealing fully with the intermediate process. Its illustrations are excellent, but it suffers from the usual disadvantage of American books on diet in this country that many of the foodstuffs are not known; even a glossary fails to get over the difficulty of the American colloquial terms. Modern advances in dietetics are, however, well described.

JOURNALS.

JOURNAL OF INDUSTRIAL HYGIENE. October, 1926. —Disease and the Workmen's Compensation Act is dealt with in the opening paper by Sir K. W. Goadby, a specialist medical referee. After describing the procedure of the Act, he points out that compensation in 1924 cost industry double what it did in 1911. The cost per person in the mining industry in 1924 was 56*s.* 2*d.* as compared with 8*s.* 7*d.* for factory operatives. Coal-miners accounted for over 90 per cent. of all claims; the claims for one disease alone, nystagmus, peculiar to them, being equal to all other claims for occupational diseases taken together. Claims for dermatitis increased from 270 cases in 1919 to 709 in 1924. Incapacity for compensated disease is shown to be much greater than for compensated accidents.—Three articles follow by E. L. Middleton, dealing with three matters concerned with the cotton industry. The first is weavers' cough, a trouble which breaks out in epidemic form from time to time in certain mills, and appears to be associated with the occurrence of mildew upon the cotton threads. The disease is carefully described and case-histories are given. The exact mould which causes trouble has not been isolated, nor have means yet been devised for abolishing moulds from weaving sheds. The second subject is that of dust in cotton-card rooms. This dust is known to cause a characteristic form of spasmodic asthma after years of exposure. Details are given of samples of dust collected under varying circumstances. The constituent of the dust at fault has not yet been determined. Further investigation is required. Meanwhile all dust generated in the early processes of opening and carding cotton should be carefully prevented from gaining access to the workrooms. The third article deals with the presence of mineral oils in the atmosphere of cotton-spinning rooms. The occurrence of mule-spinners' cancer, which is ascribed to oil on the spinners' clothes, adds interest to this investigation. Samples of air were taken in various positions in spinning-rooms and fine droplets of oil were found to be present. Herein may be a possible explanation of the access of oil to parts of the skin not exposed to oily surfaces, such as machinery, nor in contact with saturated clothing.

THE PANEL CONFERENCE.

DISCIPLINARY POWERS OF MINISTRY OF HEALTH.

THE annual Conference of representatives of local medical and panel committees was held on Oct. 21st in the Great Hall of the British Medical Association, under the presidency of Dr. E. K. LE FLEMING (Dorset). The Conference considered the report of the Insurance Acts Committee (I.A.C.), and devoted much time to discussing the right of panel practitioners to appeal from decisions by the Minister of Health.

Dr. H. G. DAIN (Birmingham), Chairman of the I.A.C., introducing the report of the Committee, said that since the last conference the Royal Commission on National Health Insurance had made its report, and the Government had founded part of their Economy Bill upon its findings. It was satisfactory that medical benefit was recognised as being a first charge, but as there were increasing demands for sickness benefit it was uncertain whether there would be enough money to meet the ordinary claims without encroaching on the funds available for additional benefit. There was reason to suppose that practitioners were not being as careful as formerly in issuing certificates of sickness, and the situation was causing much anxiety to the Ministry of Health. The Committee had, therefore, asked Sir Walter Kinnear, of the Minister's staff, to lay his views before the Conference.

DISCIPLINARY PROCEDURE.

After a motion had been carried asking the I.A.C. to reconsider the representation of Wales and other areas on the Committee, with a view to adding not more than two members to the executive, the Conference proceeded to discuss a communication received on Oct. 9th from the Ministry of Health. This was a reply to a letter sent on July 5th by the I.A.C., in which the Committee expressed its dissatisfaction with the negative attitude of the Minister on the general question of disciplinary procedure and made suggestions for reform. The reply now received describes the Committee's letter (1) as a claim that the Minister shall have no jurisdiction in questions relating to the treatment rendered by the practitioner to his patients, and (2) as a suggestion that, failing his acceptance of this claim, the Minister should consider under what conditions his jurisdiction could be limited by some right of appeal to the courts. To the first proposition the Minister answers that he cannot forgo the responsibility of considering whether reasonable skill and care have been exercised by panel practitioners. He recognises, however, that on medical issues he must necessarily be guided by professional advice, and suggests that some system might be devised by which the I.A.C. should nominate a small panel of practitioners whose advice would be sought in particular cases. If this suggestion be accepted, he proposes that the I.A.C. should consider at what times and in what circumstances such advice should be sought. The alternative proposal, to allow an appeal to the courts, does not meet with the Minister's approval. Such an appeal, he considers, would be inconsistent with constitutional practice, since, as the Royal Commission pointed out (paragraph 444), the proposal "involves placing upon the courts of law the responsibility for deciding questions of a kind which can be more appropriately decided by a Minister who is answerable to Parliament for the manner in which he exercises his discretion." The letter contains the statement that, "with every desire to give the profession all reasonable safeguards, the Minister is unable to accept any of the proposals which have been put forward on these lines."

This reply from the Ministry having been received by the Conference, Dr. DAIN said that the proposed insertion of a professional tribunal somewhere in the machinery would undoubtedly be a step towards improvement. The Conference accepted his suggestion that the offer should be referred for consideration to the I.A.C., who should discuss its terms with the Minister and report to the Conference at a later date.

Dr. H. B. BRACKENBURY (Middlesex) pointed out that it might well be worth while to hold a special session to consider so important a proposal.

The Right of Appeal to the Courts.

After approving a motion by Kent that "the Royal Commission should have called for such further evidence as it required to substantiate or refute professional assertions in connexion with the abuses of the disciplinary machinery, such evidence having been specifically offered it," the Conference proceeded to consider a motion by Cheshire as follows:—

"That there should be an appeal to the High Court from decisions of the Minister, not only on grounds of procedure, but on the merits of the case."

Dr. L. J. PICTON, the proposer, remarked that this same motion had been laid before every conference for many years. At first it had aroused little interest, but as time went on there had been a series of cases in which decisions seemed to have been made without common sense or common justice, and the movement to demand an appeal had gained ground. Last year, indeed, the motion would doubtless have been carried but for opposition based on the ground that the whole position was under review by the Royal Commission. Dr. Picton described a recent case in which a patient brought an action for damages before the civil courts whilst the charges against the practitioner were still before the Ministry. Although a decision was overdue, the Minister had refused to give it whilst the civil action was sub judice. From this it was clear, said Dr. Picton, that the right of practitioners to appeal to the courts would be a salutary check on the working of the Ministerial machinery, and it was only just, moreover, that doctors should have the same right of appeal as their patients. It was absurd to say that this would open new floodgates of litigation, for the gates were already open to insured persons. It was the right of every citizen to appeal to the courts of the land, and it was no argument to say that medical matters were too technical for lay judgment, since many other equally technical subjects were dealt with by laymen. As Mr. Forster had pointed out in 1911 in the House of Commons, the loss of a doctor's livelihood was too serious a matter to be left in the hands of Government officials.

Dr. GORDON WARD (Kent) said that the Minister's attempt to discredit appeals to the courts showed that he was afraid of them. As a writer in THE LANCET had pointed out in 1923, nurses, midwives, and dentists had the right of appeal to the High Court; it was nonsense to say that a medical appeal would be unconstitutional.

A representative speaking both as barrister and panel practitioner, did not agree that the floodgates of litigation were already open. In the case quoted by Dr. Picton, he said, the patient had not appealed against a decision of the Ministry, but had merely taken action in law. His own experience of courts of inquiry was that nothing could be fairer, and that every effort was made to find extenuating circumstances for the medical man.

Dr. A. FOSTER (Worcester) opposed the motion because appeal to the courts was unconstitutional, and would mean long delay and expense. It was contrary, he said, to legal precedent to make an appeal from a Government Department to the High Courts, and doctors would not be the gainers if they had the additional worry of defending these actions. The Ministry, however, had tried to do what the courts had never attempted—it had tried to define "reasonable care." In this it had failed.

Dr. H. ROSE (Bucks) said that in his experience the Ministry was most fair in its treatment of doctors.

Dr. H. S. BEADLES (Essex) complained that the Ministry did not always take the advice of the courts

of inquiry; this was the reason why an appeal from the Minister's decision was necessary.

Dr. J. HOLMES (Bury) advocated support for the Insurance Acts Committee in demanding an appeal.

Dr. C. J. PALMER (Notts) hoped that there would be no appeal to the courts, since an appeal must involve undue publicity for the doctor and unnecessary expense. He gave illustrations of the inability of lay courts to understand medical matters.

Dr. G. C. GARRATT (West Sussex) said that the courts of inquiry were certainly judicial, and he saw no reason for a right to appeal against their decisions. In one case, however, in which a court of inquiry had found for a doctor and granted him costs, the Ministry had overthrown the court's decision and fined the doctor £20. Dr. Garratt gave three instances in which, he said, the Ministry's decision had been anything but fair, and had been contrary to the local recommendation. It was regrettable that the Ministry did not pay attention to the particular local conditions under which practitioners worked. It had never been the intention of Parliament, he maintained, that the present powers of the Minister of Health should be invested in one man; they had been given to a body, now swept away, on which panel practitioners were represented. It had been suggested that the right of appeal would involve much waste of time and money. This was quite true. But surely this would be a safeguard against common resort to appeals. There was already an appeal from the Minister's decisions on the ground of their illegality; why should there not be an appeal on grounds of injustice?

Dr. BRACKENBURY said that the Conference was discussing a specific remedy for the abuses of the present system. That remedy, it was suggested, should be a universal right to appeal. If the Conference were to pass a motion calling for such a right it would be tying the hands of the Insurance Acts Committee, which would have to demand a right of appeal in every case. Everyone would agree that there should be such a right in certain defined types of cases, but if a general right existed it would not be the monopoly of practitioners. Patients and approved societies would receive equal privileges, and he did not want to see them appealing to the courts in cases where the Ministry's decision had been given in favour of the doctor.

Dr. DAIN said that all the profession wanted was machinery that would provide for perfect justice. If such machinery could be devised in any other way, no one would want to go to the High Courts simply for the sport of it. He believed it not impossible to secure such internal arrangements as would be satisfactory.

Dr. D. F. TODD (Sunderland) complained that the demand for an appeal was put off year after year; it was now time that something should be done. Why should not the Minister be made to carry out the decisions of courts of inquiry? What was the use of holding such courts if he could override their decisions?

Dr. BRACKENBURY, seconded by Dr. PETER MACDONALD (York), then proposed, as an amendment to the motion:

> That in the opinion of this Conference there should be an appeal to the courts on grounds of (1) illegal, irregular procedure; (2) alleged vindictive penalties; and (3) where common law action by the patient would normally lie; and that the question of appeals in other cases be referred to the Insurance Acts Committee for consultation with the Ministry.

Dr. PICTON, opposing this amendment, said that his original motion was a useful expression of opinion. The Conference should tell the Insurance Acts Committee what it really thought. The amendment was, however, carried by 90 votes to 30 and was then carried as the substantive motion.

On behalf of the I.A.C. Dr. DAIN then proposed:—

> That this Conference regards as serious the situation which arises in consequence of the negative replies of the Ministry of Health in connexion with the methods and machinery for dealing with complaints against insurance practitioners; and pledges itself to support proposals (*a*) to secure equal justice for practitioners as for insured persons and approved societies; (*b*) to secure improved methods for dealing with complaints of minor importance; and (*c*) to organise a most strenuous resistance to any claims of the Ministry of Health or of Insurance Committees to judge as to the propriety of the treatment adopted by a practitioner in attending his patient or the relative degree of care and skill shown by a practitioner in such attendance as compared with that of other registered medical practitioners.

Discussion arose only on part (*c*) of this motion. Dr. GORDON WARD opposed it because, he said, no Government Department could possibly bind itself to take no interest in a particular sphere of the work for which it was responsible. The Ministry, moreover, had already turned down the proposal.

Dr. J. S. MANSON (Warrington) hoped that the motion would be referred back to the I.A.C. The organisation of strenuous resistance to the Ministry's claim to discipline careless practitioners might make the public say that the British Medical Association was trying to shield incompetence.

Dr. H. J. CARDALE (London) wanted the words "care and" deleted from the motion, whilst Dr. BRACKENBURY hoped that it would be passed exactly as it stood, since in this form it had been approved by the representative meeting of the B.M.A., and it would be a pity to make verbal changes where there was no fundamental difference of opinion. Nothing short of a drastic letter, he said, would draw a reply from the Ministry.

Dr. DAIN said that it was necessary to be quite definite on this question. When a practitioner undertook an insurance contract he undertook, as a matter of course, to give his patients the benefit of "ordinary skill"; he did not for a moment suppose that his actions would come up for judgment by the Minister or his officers who would make decisions about them on the strength of a written report. It was intolerable, Dr. Dain thought, that the Minister should be able to pick out some part of the story—perhaps a part not much discussed by the Court of Inquiry—and found his own judgment upon it.

The motion was carried by a large majority.

Evidence of Character and Previous Conduct.

On a motion by the I.A.C., recommending the Conference to accept the proposals of the Ministry as to the hearing of evidence of character and previous conduct, Dr. DAIN said that these proposals were in keeping with ordinary legal procedure. Courts of inquiry sat to hear a particular charge brought against a doctor. The presiding barristers ruled that it was impossible to receive evidence not directly bearing on the case and therefore refused to hear evidence of character from the doctor's friends. Similarly they would not take evidence against the doctor submitted by the patient or approved society. The I.A.C. agreed, however, that after a decision on the facts had been reached it was proper for the judge to hear evidence of character and previous behaviour before he passed sentence.

Dr. GORDON WARD said that in an inquiry *all* the evidence should be heard. Everything must be above board. Inquiry committees should be allowed to report on the inference of the facts—that is, whether the doctor was guilty or not. To this Dr. DAIN replied that it was not relevant to hear evidence of character in deciding on the truth of a specific charge. It would be a mistake not to adhere to the legal precedent.

The Conference, by a very large majority, agreed to accept the Ministry's proposals.

Increased Claims for Sickness Benefit.

Sir WALTER KINNEAR (Ministry of Health) then addressed the Conference on the increase of claims for sickness benefit and the financial position of the approved societies. He asked that no report of his statements should be published. The Conference warmly thanked Sir Walter Kinnear for his clear statement of the facts, and at the afternoon session passed a resolution asking the I.A.C. to consider

what practical steps could be taken to meet the difficulties which he had raised, and requesting representatives of local medical and panel committees to use their influence along the lines he had suggested.

Dr. M. W. RENTON (Kent) proposed a motion welcoming the finding of the Minority Report of the Royal Commission that "the approved society system is a hindrance to the development of a complete public health policy," but the Conference decided to pass on to the next business, as the time was held inappropriate for discussing the many issues which the motion might raise.

Maternity Benefit.

The following resolution, also by Kent, was then discussed :—

That this Conference welcomes the finding of the Royal Commission that "the service element (of maternity benefit) should be administered by the local health authorities and be coördinated with the other local medical services," understanding that this implies that maternity services will not be within the scope of the contract of medical service under the Insurance Acts.

Dr. BRACKENBURY, opposing, said that he trusted that the time would never come when maternity work would be taken out of the sphere of the family or insurance practitioner.

Dr. E. A. GREGG said that the Conference would be very unwise to give an impression that it thought that maternity work should be put into the hands of local health authorities. It should be remembered that the panel doctor was only an insurance practitioner in one aspect of his work.

Dr. GORDON WARD said that, no matter what the Conference did or said, the machinery provided by local authorities for carrying on maternity work was bound to expand and increase. He would, of course, oppose any suggestion that the midwifery of an area should be the monopoly of a single specialist, but he thought that panel practitioners would do well to make use of the local authorities' services rather than the cumbersome machinery of the Insurance Acts.

The motion was lost.

Keeping of Records.

On a motion by the I.A.C. to approve the proposed machinery for dealing with cases of alleged failure to keep proper medical records, Dr. DAIN said that the Committee had not objected to the Minister fining practitioners where the facts were not in dispute, but it did object to medical records going before any committees on which laymen sat, such as the medical service subcommittees. The Minister had been in the habit of sending down a medical officer to investigate complaints, and it had now been arranged that two doctors, representing the local panel committee and a neighbouring panel committee, should sit with this officer and be empowered to send to the Minister their comments on the case.

Dr. GORDON WARD pointed out that a fine of £50 was sometimes inflicted in these cases. They were too important for hole-and-corner methods. Why should not a barrister sit on the Inquiry Committee? To this Dr. DAIN replied that courts of inquiry were only used when a claim was made that a practitioner should be taken off the panel. The new proposals were the first suggestion that anyone besides the medical officer from the Ministry should hear these cases.

The Conference, by approving the I.A.C.'s motion, accepted the new proposals. The two following motions, proposed respectively by the I.A.C. and Hastings, were also carried :—

That the Conference reiterates the opinion previously expressed on the subject of medical records—namely, that the value of careful clinical notes and essential dates on medical records is fully appreciated, but that it is unnecessary to record all attendances, &c. (except where practitioners have agreed to keep full records of work done for statistical purposes). The Conference desires to point out to the Minister of Health that the experience gained of the working of the recommendation of the Inter-Departmental Committee on Medical Records of 1920, on which the present record is based, has caused some of the medical members of that Committee to alter their views on this subject.

That this Conference draws the attention of practitioners to the inconvenience caused by neglect to forward record cards of persons transferred from one practitioner to another, and requests that they shall be sent on as soon as possible after the removal from the list.

Production of Medical Cards by Patients.

An interesting discussion arose on a motion by the I.A.C. to approve the principle that a practitioner is not entitled to demand the production of a medical card, or, alternatively, the payment of a fee, as a condition of providing treatment for an insured person already on his list, unless he has reasonable grounds for doubting the patient's identity. Among those who spoke on this motion was Dr. CARDALE, who held that it would be very unwise to sap the rule that a practitioner was always entitled to demand a card. Certainly it was not necessary to take the fee where a card could not be produced, but the claim for a fee was a valuable lever. If this lever were given away patients would bring their cards or not, just as they liked.

The I.A.C.'s motion was, however, passed.

On a proposal by Hastings that the I.A.C. should press for the abolition of Clause 7 (para. 3) in the Terms of Service, Dr. A. E. LARKING wittily described the difficulties of panel practitioners at health resorts. To Hastings, he said, came large numbers of highly-dressed ladies and gentlemen. When they came to see a doctor he naturally did not like to ask if they were panel patients, and often attended and prescribed for them for some time in blissful ignorance of their true status. It was most unfair of these people to come and pose as private patients, thinking—though most unjustly, of course—that they would get better treatment. The medical practitioners of Hastings thought it only right that their patients, if insured, should disclose the fact.

Dr. A. W. HOLTHUSEN (Southend) supported Dr. Larking's plea by telling a story in which a woman and her friends had deliberately masqueraded as private patients and then had asked for a refund of fees which they had paid.

Dr. BRACKENBURY opposed the motion on the ground that the clause complained of had been put in so that such cases—often cases of bona fide mistakes by doctors—should not always have to go before medical service subcommittees.

The motion by Hastings was not agreed to.

Complaints against Officials of Approved Societies.

Dr. W. COOK (Warwickshire) described how he had been forced (out of charity) to visit a patient a mile away in order to give her a certificate of sickness, because she had been told by the agent of her approved society that if she stirred a foot outside her own district she would forfeit her sick pay.

The Conference passed the following resolution :—

That the Insurance Acts Committee be instructed to press for power being given to the Medical Service Subcommittee or other approved body to investigate complaints made by insured persons, insurance practitioners, or panel committees against approved society officials who alter or in any way falsify medical certificates, or otherwise interfere with practitioners in the performance of their duties.

Remuneration.

A motion by the I.A.C. "that the question of the amount of the capitation fee for 1927 for the treatment of insured persons be not raised on behalf of insurance practitioners" was approved by the Conference. In proposing an amendment by Kent, that any decision as to stabilisation or revision of the capitation fee should be preceded by an inquiry by the profession into the market value of the panel practitioner's services, Dr. GORDON WARD said that the present remuneration was based on the original fee which had merely been modified according to the cost of living and other factors. The capitation fee for panel patients ought, however, to be calculated from the cost of similar services to private patients of the same class. In Kent this would justify a capitation fee of 12*s.* or 13*s.*

Dr. BRACKENBURY did not agree that the present capitation fee was based on the original figure. It was quite unnecessary, he thought, to hold an investigation into the "market value" of the doctor's services—a term whose use he deprecated—since whenever the proper value of the capitation fee was being calculated the fees charged to private patients must inevitably be taken into consideration.

Dr. J. W. BONE (Luton) thought that it was impossible to stabilise the capitation fee. An estimate from charges in Kent might show that the fee should be higher than it was, but in poorer counties the result would be otherwise. Dr. Bone personally was content that his remuneration should be at the present capitation rate and feared that revision might make it lower rather than higher, for this was an unsuitable time to suggest a change.

The amendment by Kent was lost.

Dental and Ophthalmic Benefit.

Dr. F. W. COAKER (Worcestershire) proposed a motion urging the I.A.C. (1) to approach the Ministry with a view to steps being taken towards making dental and ophthalmic treatment statutory benefits, and (2) to make arrangements with the Ministry so as to make it permissible for any insurance practitioner to state on the written recommendation for specialist treatment the name of the specialist he advised his patient to consult.

Dr. C. M. STEVENSON (Cambridgeshire) complained that some of the approved societies were sending all their patients to one ophthalmic specialist, and sometimes refusing to pay the fees of specialists whom the patient himself had chosen. He could not, however, support the second part of the motion because he thought that the choice of an ophthalmic surgeon should rest with the insured person; the panel doctor had done enough when he had given a verbal recommendation.

Dr. H. W. POOLER (Derbyshire) said that the trouble was that approved societies were recommending opticians instead of ophthalmic surgeons. One society had written from Manchester to a patient of his, saying that their own optician did not go so far as the patient's neighbourhood, and that they would be glad if he would call on any local optician who could prescribe glasses.

After some further discussion Dr. DAIN pointed out that dental and ophthalmic benefits were surplus benefits; the societies had a perfect right to arrange for themselves how they should spend the money, and the Ministry had no power to dictate to them. It would therefore be futile to pass the Worcestershire motion. Apart from this, if every panel doctor was to make a practice of sending to ophthalmic surgeons all patients who required examination of the eyes the money available for ophthalmic benefit during the next five years would all be spent in 12 months. The increase of ordinary sickness claims made it probable in any case that there would soon be no funds left for ophthalmic benefit, and the problem was thus likely to solve itself shortly. He saw no objection to practitioners putting down the name of a specialist on their recommendations.

Dr. Coaker's motion was lost.

Speaking on a further motion by Hastings, approving the principle that wherever the practitioner considered further advice necessary the patient should in the first place be referred to an ophthalmic surgeon and not an optician, Dr. LARKING pointed out that the panel doctor's certificate might take various forms. He might recommend a visit to an optician for glasses or to a surgeon for further investigation. To send all cases to a specialist, he thought, would defeat its own ends. Societies should not have had placed on them the duty to decide. It was sometimes suggested that the practitioner should give some idea on the certificate of what was wrong with the patient, so as to aid them in their decision; but to do this would be to give away the right to send all patients to the ophthalmic surgeon.

Dr. G. A. RORIE proposed an amendment by Dundee suggesting that cases in which the practitioner was satisfied that only spectacle-fitting was required should be excepted from the B.M.A.'s recommendation. This amendment was lost by 47 votes to 52.

Dr. ALFRED COX (B.M.A.) said that he wished that it could be realised how muddled the position was becoming. They would soon have to make up their mind whether general practitioners should discriminate between those cases which required diagnosis and treatment by an ophthalmic specialist and those which did not, or whether all cases in which the eyes required consideration must be sent to a specialist at once. As Dr. Dain had pointed out, there might soon be no benefit left.

The Conference then accepted a proposal by Dr. DAIN to proceed to the next business.

Further Proceedings.

On a motion by Kent asking the I.A.C. to secure statistics on certain special services included in the capitation fee payment, Dr. G. C. ANDERSON gave an account of the B.M.A.'s work in collecting figures from panel and non-panel practitioners.

Dr. J. P. WILLIAMS-FREEMAN (Andover) and Dr. H. R. BROWN (Essex) contributed to a discussion, on the cost of prescribing, which led to a motion being passed accepting the Ministry's offer to increase the 2*s.* capitation grant to 2*s.* 3*d.* as the best at present obtainable.

Several proposals dealing with the method by which an insured person changes his doctor were referred back to the I.A.C., and a resolution was passed "that insurance practitioners should not be expected to provide sickness certificates, prescriptions, or medicine for tuberculous patients who are in regular attendance and in receipt of treatment at the tuberculosis dispensary."

Dr. J. MCCREA (Berkshire) proposed:—

That in the opinion of this Conference, approved society officials should not have the power to refuse sickness benefit on medical grounds alone, to any insured person, who has been certified as incapable of work by a doctor on the panel, unless he/she has been reported fit for work by the regional medical officer: and that the Insurance Acts Committee be instructed to take immediate action to enforce this reform.

This motion was passed in spite of a protest by Dr. DAIN, who said that it was quite impossible to compel the societies to accept a doctor's certificate, though patients could appeal if the certificate was refused. The I.A.C. would find itself unable to act in the matter.

Dr. R. FORBES (Gateshead) raised the question of the appointment of medical referees by approved societies.

Dr. BONE proposed that the I.A.C. should undertake an investigation of drugs for the new British Pharmacopœia from the point of view of insurance practice, and this suggestion was endorsed by the Conference.

Amongst other motions proposed and carried at the Conference were the following:—

That there be no relaxation of effort in the matter of obtaining contributions for the National Insurance Defence Trust until that Trust has reached the total of £250,000.

That the Conference approves of the proposal that Insurance Committees should notify parties in cases heard before the Service Subcommittee of their right of appeal and of the power of the Minister to award costs as he may think fit.

That the Conference agrees to the proposal that the notice issued to insured persons on the list of a deceased or retiring practitioner, informing them of their right to a fresh choice, shall intimate that they would be deemed to have consented to their names being transferred to the successor's list unless within one month of receiving such notice they gave notice of objection to such transference.

That this Conference is of opinion that the existing arrangement whereby that portion of insured seamen who, as members of the Seamen's National Insurance Society, obtain their medical benefit through the society, should be discontinued, and that all insured seamen should obtain their medical benefit in the ordinary manner through Insurance Committees.

Dr. E. K. LE FLEMING was unanimously re-elected Chairman of the Conference for the ensuing year, and the proceedings ended at about 6.30 P.M.

THE LANCET.

LONDON: SATURDAY, OCTOBER 30, 1926.

THE RIGHT OF APPEAL.

YEAR after year the panel doctors have been demanding the right to appeal (preferably to the law-courts) from the disciplinary decisions promulgated by the Ministry of Health under the National Health Insurance Medical Benefit Regulations. Their persistence has had a twofold origin. In the first place they have been conscious of specific grievances—ministerial decisions seemingly at variance with the findings of local inquiries, a somewhat arbitrary infliction of lesser penalties when the full penalty of removal from the medical list has not been imposed, the withholding of costs from doctors against whom complaints have failed, and other matters to which attention has been drawn from time to time. In the second place they have been unable to forget that in this country every citizen enjoys an unfettered right of access to courts of justice, and they have resented the apparent diminution of that right in the contractual relationship which governs their service under the National Health Insurance Acts. As a result of recent discussions the position of the panel doctor has been improved and the atmosphere cleared. He may be congratulated on having obtained valuable concessions. The Ministry of Health has consented to allow him the opportunity of a further hearing before any lesser penalty than removal from the medical list is inflicted.

Thus a doctor summoned to meet definite allegations on the issue whether his name is to be removed or not, and who has succeeded upon that issue, is not to be punished upon other issues without a proper chance to make his defence. Secondly, the Ministry has expressed—though rather cautiously—its willingness to consider evidence of the previous good character and professional reputation of a practitioner. Thirdly, the Ministry has recognised that, in considering whether reasonable skill and care have been exercised, the question necessarily involves medical issues on which the guidance of professional advice is required. The Minister is prepared to accept nominations by the Insurance Acts Committee of a small panel of practitioners from which could be selected those whose advice might be sought in particular cases. This offer, on the unanimous approval by the Panel Conference (reported at length on p. 909 of our present issue) of a motion by Dr. H. G. DAIN to that effect, has been referred to the Committee for discussion with the Ministry. The Ministry has hitherto shown itself disinclined to enlarge its recourse to a professional tribunal on points of professional practice—an attitude in contrast to that of the Home Office which has recently had sufficient confidence in the medical profession to entrust its representatives with a remarkable measure of criminal jurisdiction under the Dangerous Drugs Acts. As Dr. DAIN observes, the Ministry's offer to insert a professional tribunal somewhere in the machinery of health insurance is a step in the right direction, but it is not yet clear at what point the tribunal will be inserted. These concessions will do much to meet the demand for a right of appeal to the law-courts, though we have yet to see them in operation. We must not be thought ungrateful for them if we suggest that the Ministry would remove a great source of grievance if it would limit its disciplinary decisions to the sole question whether a panel doctor is or is not fit to be upon the medical list. When exercising its own disciplinary jurisdiction the General Medical Council confines itself to the single issue whether a registered medical practitioner is or is not fit to be upon the Register. The feeling is growing that it would better accord with the traditions and dignity of the profession if the Ministry worked upon the same basis and eschewed the imposition of lesser penalties.

Upon the general question of the right to appeal to the law-courts it is wise not to confuse two very different matters. The possible appeal from a disciplinary decision of the Minister under the health insurance system is something quite distinct from the possible appeal against a disciplinary decision of the General Medical Council. As we have on other occasions observed, the members of various professions—nurses, midwives, dentists, and veterinary surgeons—have a statutory right of appeal to the High Court or the Privy Council against the removal of their names from the professional register; medical practitioners have no such statutory right. But this disability of doctors to appeal against a disciplinary tribunal composed of members of their own profession has an aspect very different from the disability to appeal against the disciplinary decision of a Government department. It may fairly be said that the doctor's sense of exclusion from the law-courts in the one case makes him more conscious of exclusion in the other; but no useful purpose is served by confusing the two disabilities. Nor should too much stress be laid, we consider, on the grievance that a panel patient, in addition to the right of complaint under the Medical Benefit Regulations, has access also to the law-courts to obtain damages for alleged negligence on the part of the panel doctor. The patient has a right to enforce in the courts the supposed duties of the panel doctor. There are no converse duties on the part of the panel patient which the doctor needs to enforce. The legal position is thus in this respect not so one-sided as it might at first appear. When these considerations have been eliminated there remains to say that the Ministry of Health will more readily reach the successful solution of present difficulties by avoiding emphasis on doubtful arguments of its own. It is no final answer to say that a proposed reform will involve fresh legislation. That is what Parliament is for. Nor is it conclusive to suggest that the right of appeal for which panel doctors are pressing will involve expensive and cumbrous proceedings. The ordinary litigant does not find it either a cheap or a precipitate process to take his grievance from the lowest courts up to the House of Lords; yet nobody suggests that his right of appeal should therefore disappear. The Ministry must not make too much either of its suggestion that the British constitution forbids an appeal to the law-courts from the decision of a department, or of its hint that the panel doctor must not take his troubles to a judge because these are matters of high policy fit only for the Government or Parliament to handle. Distinguished judges have commented adversely upon the growing tendency of departments and officials to claim to act without appeal to a court of law, and sound constitutional doctrine teaches that the amalgamation of judicial and executive functions is a grave political danger.

CLINICS FOR RHEUMATISM.

THE immense amount of industrial disability produced by rheumatism is only just beginning to attract the attention that it deserves. Attempts have lately been made to interest both employers and trades unionists in the magnitude of the problem; the friendly societies have already shown their concern, whilst early in the present week Mr. SPEDAN LEWIS, a big employer of labour in London, presided at a meeting promoted by the Citizens' Council of the Federation of Medical and Allied Services, at which Sir THOMAS HORDER opened a discussion on rheumatism in industry. Recent inquiry in the insurance medical service has shown that 370,000 insured patients annually seek medical advice on account of rheumatism; that two million pounds are given to these patients for subsistence (not for treatment), and that three million weeks of work are thus forfeited each year. The spa hospitals have 681 beds between them and treat about 8600 patients in the year. Outside these hospitals there is no adequate treatment for insured persons suffering from rheumatic disease, for, as Dr. M. B. RAY states in a paper printed in the present issue of THE LANCET, the treatment available at hospital out-patient departments is usually not of the kind likely to prove most beneficial. In this we might learn a lesson from one of our nearest neighbours. Reviewing the measures taken in Northern Europe for the treatment of industrial rheumatism, Dr. RAY refers to Dr. J. VAN BREEMEN'S clinic at Amsterdam, which has just been visited by representatives of the Ministry of Health, where about 1000 patients are dealt with every year and various kinds of physical treatment are given with no little success. Dr. RAY describes the suggestions of an English subcommittee of the International Society of Medical Hydrology. Their scheme provides in the first place for the proper selection at distributing centres of cases for special treatment. At the present time it is the advanced cases, for whom little can be done, which are chiefly to be found at spa hospitals, while the less advanced and more hopeful cases frequent the surgeries of insurance practitioners at stated intervals simply in order to obtain the renewal of their certificates of disability. Unfortunately, the more obvious and permanent the disability the better the chance of securing admission to a spa hospital. Their second aim is the further investigation of rheumatism as a pathological condition into whose causation a great many factors may enter. And in the third place the committee aims at setting up further centres for the actual treatment of rheumatic conditions; these are to take the form of clinics for physical and other therapy in large towns, the possibility of attaching wards to these clinics being borne in mind.

It will be generally agreed that the present lack of treatment of chronic rheumatism is a drain on the industry and resources of the country; industries, friendly societies, and the Government would all serve their own interests by spending a little more money on treatment than they now spend on a subsistence dole. A recent friendly society conference has called on the Ministry of Health to sanction spa treatment as an additional benefit under the National Insurance Acts, and there is reason to suppose that their plea will be successful, though it is not so clear that there will be funds available to make it effective. Moreover, though we may agree with Sir KINGSLEY WOOD'S remark at Leamington that British spas bear comparison with any of their foreign rivals, the facilities for distributing patients to the proper centres and giving them proper treatment leave much to be desired, and if insured persons are to derive full advantage from the benefits of spa treatment, it will certainly be necessary to provide centres for diagnosis. The suggestion is that diagnosis should be done at clinics, but nowadays examination of a case of arthritis involves exhaustive investigation along bacteriological, metabolic, clinical, and other lines and is hard to carry out without keeping the patient in bed for a while. From the point of view of research into ætiology, also, the clinic would probably prove less suitable than the large hospital.

Though, however, we may question whether the out-patient clinic is the ideal unit for distributing patients and for research, there can be no doubt of its therapeutic usefulness; it is clear enough that an immense amount of industrial disability (and of suffering) could be saved by palliative treatment given on a large scale at clinics all over the country, in a way that it is not given at the present time. It may be that at some hospitals the physical treatment departments are providing the best that can be had, but there are not enough of them, they are not properly supported, and do not receive the right patients at the right time. The need is rather for reorganisation of existing facilities than for a new departure likely to alter medical methods or bring valuable scientific information. But in view of the seriousness of rheumatism this reorganisation is exceedingly important. The problem of chronic arthritis in adults cannot be tackled by the individual practitioner; it is not being tackled by the hospitals, and it seems that it could be tackled by clinics. The specialist clinic is a necessary development of insurance practice and, as the Dawson Report pointed out, it is by clinics that much of the medical work of the future will have to be carried on. Rheumatic disability in its milder forms seems particularly fitted for treatment at this type of institution; suitably organised such treatment might be given to patients without preventing them from carrying on with some at least of their work. Local treatment (e.g., radiant heat) and advice about diet and clothing may be enough to convert the discouraged certificate-holder who loafs at home into a patient who is hoping to get well and is able to go on with his work. To sum up: elaborate hospitals may be needed for investigation and distribution of cases, but much good might be done by palliative treatment at clinics, of which many would be needed. Whilst these clinics may carry on research in therapeutics, they are not, perhaps, so likely to prove valuable in research on ætiology.

PUBLIC HEALTH IN GERMANY.

LAST week, under the auspices of the Chadwick Trust, Prof. Rudolf Abel, of the University of Jena, gave two lectures in London on the Development and Present State of Public Health in Germany. We have already briefly reported the first of these lectures,[1] which was given on Oct. 19th, with Sir William Collins in the chair, and have referred to Prof. Abel's intention to compare the conditions and history of public health work in Germany and England. This theme was pursued by Sir Arthur Newsholme, who presided on Oct. 20th, and pointed out that the English development arose largely from humanitarian motives, though economic motives also had their influence, whereas the more recent German impulse started in the laboratory, in the work of Pettenkofer, and later in that of Koch and many others. Prof. Abel's second lecture was a survey of almost the whole field of public health and social work. He said that the German

[1] THE LANCET, Oct. 23rd, p. 886.

law, which requires vaccination in infancy and at the age of 12, is strictly enforced, there being no conscientious objection. As in England, coincident with enforcement of vaccination, there has been the well-known inversion of the age-incidence of small-pox; up to 1874 nearly all deaths from this disease occurred at ages under 12, whereas in 1916–17 90 per cent. occurred at ages over 40, and a large proportion of the small number of deaths occurred among foreigners. In Germany no fees are paid to doctors for notifying cases of infectious disease, this being regarded as a duty they owe to the State. There is more typhoid in Germany than in England, but very much less measles. The tuberculosis death-rate, although always higher than in England, shows an almost parallel course of decline. Dealing with tuberculosis, venereal disease, and alcoholism, which he called "the three national scourges of Germany," Prof. Abel said that in Germany there are 186 tuberculosis sanatoriums for adults with some 20,000 beds, 318 sanatoriums for children with some 27,000 beds, 183 open-air schools, and 444 hospitals and homes for tuberculous patients. The success of the various methods of treatment and advice at these institutions, in dispensaries, and at the homes of the patients is obvious, though still inadequate. The increase in the death-rate from tuberculosis during the late war was greater in Germany than in England; and after a post-bellum decline there was a smaller but significant rise once more in 1923–24, during the privations involved in the so-called demonetisation of German finance. Venereal diseases also increased greatly in war-time. In 1909 a census was taken of patients under treatment for these diseases. For Germany as a whole the proportion at the time of the census was 20, and for the large towns was 80 per 10,000 inhabitants. During the war there was some provision for compulsory treatment of patients, which has not been continued, and at the present time the prohibition of treatment by quacks, already enforced in England, is under consideration. The alcoholic question, Prof. Abel pointed out, is one of serious public health import. Before the war the expenditure per head on alcoholic drinks was 45*s*. a year, but during the war it fell greatly, as also did admissions to lunatic asylums for alcoholism. The lecturer spoke strongly of the need for further regulation of the consumption of alcohol, and for the encouragement of sport and other counter-attractions.

In the important work of maternity and child welfare much work has been done in Germany, and in Prof. Abel's opinion midwifery is on the whole better regulated than in England. Abortion, however, has greatly increased in recent years and infant mortality is higher than in England. Thus in 1925 the infantile death-rate in Germany was 105, but in England only 75 per 1000 births. The school medical service on the average is less developed than in this country, but all children are examined at the time of entering and on leaving school. Medical supervision is being gradually extended to the continuation schools, which must be attended by all children up to the age of 18. The general use of hospitals almost dates from 1869, when Lister initiated the antiseptic treatment of wounds. Prior to this the view held in Germany apparently was that of Florence Nightingale—namely, that hospital treatment greatly increased the chance of death. Most hospitals are now supported out of public funds, and there are no separate hospitals for infectious diseases, even small-pox being treated in rooms off the general wards. The number of hospital beds available in Germany is stated to be over 5 per 1000 inhabitants. In housing and town-planning it is evident that Germany has progressed much less than England. Town-planning Prof. Abel regarded as being of French (Napoleonic) origin, while for the initiation of underground sanitation (water-supplies and sewerage) Germany is indebted to England. Town-planning as carried out both in France and Germany in central sites has been mischievous, he thinks, because owing to the uncontrolled price of these plots of land, it has been necessary to crowd tall houses on each plot. Over 46 per cent. of the population of Berlin live in one or two rooms, the corresponding figure for Edinburgh being, it was stated, 36 per cent. Lantern slides were shown to illustrate the customary five- and six-storey tenement dwellings, and were reminiscent of the worst conditions of New York; in Berlin on an average 76 families, and in Munich 39 families, live in each block. After the war a million German refugees returned from other countries, and owing to cessation of all building operations the housing position in Germany became desperate. There has been fixation of rents, as in England.

In the last section of his rapid review Prof. Abel made some general remarks on the transition from environmental hygiene to personal hygiene, quoting with approval the saying that environment holds the organism in its grip and hammers it into shape; he described some of the many attempts to shape personal life which are now being made in Germany as in other countries. It is evident, however, he said, that England has gone further and has had greater success in this, as well as in environmental hygiene, than the German Empire, though for part of this difference the pitiable financial position of the mass of population of Germany is partially responsible.

The Chadwick Trust are to be congratulated in securing for the English public access to the lucid and accurate information which Prof. Abel was able to give in his two lectures.

CIVIC HEALTH WEEKS.

AN October week has been chosen by many municipalities in the British Isles to bring to the notice of all good citizens the efforts made on their behalf to render life clean and healthy. We call attention on another page to the well-designed and executed booklets issued by the health committees of St. Pancras and Kingston-upon-Hull. Dr. SOWDEN'S idea is to provide a homely work of reference for parents so that they may avoid the common mistakes and risks in the upbringing of children. Dr. DALEY arranged an open day at the maternity home, welfare centres and after-care colonies, with a variety of health films at the local kinemas. In Dublin, under the auspices of the Women's Health Association, the secretary of the new Department of Local Government and Public Health addressed a large gathering on the advantages already gained from cleanliness in a big sense and foreshadowed a scheme for the medical inspection of school-children in Ireland. In Liverpool the celebration of "Civic Week" was so successful that it is likely to become an annual event. Here we may have a great potentiality for good as yet largely untapped. If "Civic Week" becomes an institution adopted in other large towns it is essential that due importance should be attached to the medical aspects of a city's life and greatness. Few laymen realise how all-pervading are the activities of the medical officer of health's department, nor how much they are indebted to his staff for the safety, cleanliness and comfort of the daily round. Properly utilised, such an occasion could be made most telling in the diffusion of elementary facts of hygiene, by lecturettes, exhibition of lantern and kinematograph films, and by demonstrations of certain phases of sanitary work in actual progress.

CONFERENCE ON THE CARE OF CRIPPLES.—A joint conference on the care of invalid and crippled children is to be held by the Invalid Children's Aid Association and the Central Committee for the Care of Cripples on Thursday and Friday, Nov. 18th and 19th, in the great hall of the British Medical Association in Tavistock-square. Mr. Neville Chamberlain, Minister of Health, will give the opening address, and the chair will be taken at the four sessions by Lord Islington, the Duchess of Atholl, M.P., Sir Arthur Stanley, and Sir Robert Jones. Among the medical speakers will be Mr. R. C. Elmslie, Mr. Harry Platt, Dr. Stuart Cowell, Dr. Arbour Stevens, and Mr. G. R. Girdlestone. Further particulars may be had from the hon. secretaries of the Association and Committee at 117, Piccadilly, London, W. 1. The sessions will begin at 10.30 and 2.30 on each day.

Annotations.

"Ne quid nimis."

GASTRIC ULCER AND GASTRIC CANCER.

A GREAT deal has been written about the relation of gastric cancer to gastric ulcer, and very different opinions have been expressed. It is a hackneyed subject to which there would be no object in referring—unless new data could be brought forward—were it not that the declared high incidence of cancer grafted upon simple ulcer in the stomach is used by some surgeons of authority as a strong argument in favour of submitting the patient with gastric ulcer to an excision operation of some severity. Belief in the reality of the high occurrence rate of this terrible complication must necessarily often be the deciding factor in arriving at the grave decision to perform an extensive gastrectomy. It is therefore not unfitting that from time to time attention should be directed to such an important but still debatable question, and on p. 925 we publish a letter from Dr. Alfred Plaut, who reviews very unfavourably the evidence accepted by many in support of the claim that gastric ulcer frequently ends in gastric cancer. He points out the fallacies in many statistical publications. Particularly worthless, he considers, is the long history of indigestion which sometimes precedes cancer, for not only may simple dyspepsia vitiate such statistics, but in a number of instances it has been proved that cancer of the stomach may follow a very prolonged course. In the earliest stages it is symptomless, and so remains unrecognised for a period, the length of which is unknown. Dr. Plaut declares that reliable hospital statistics show unrecognised cancer of the stomach to reach as high a percentage as 20. The commonest site of cancer, he points out, is not the commonest site of ulcer. This latter disease has a peculiar geographical distribution, some countries or districts in the same country showing a much greater incidence than others. Cancer shows no parallel distribution as it should do were there an important relation between the two diseases. Whilst not denying that very rarely cancerous change appears in a simple ulcer, Dr. Plaut goes the length of saying that the belief that it is a more common event is a matter of psychology, a simple assertion or affirmation, and does not arise from a purely medical decision.

A summary of the true medical evidence may be given. In 1914 W. C. McCarty and A. C. Broders [1] from histological investigations said that the incidence of malignant transformation was 70 per cent. This figure has been questioned by J. Ewing [2] and by B. H. Spilsbury,[3] who lay stress on the fact that, at the margin of a simple ulcer, distortion of the epithelial arrangement is caused by fibrosis and can easily be mistaken for cancer. J. H. Dible [4] did not find a single undisputable case amongst 126 excised ulcers, neither did J. Morley [5] find a case amongst 50 resected ulcers. Berkeley Moynihan,[6] partly from consideration of the history, but partly from the researches of M. J. Stewart [7] at Leeds, who gives the incidence as 9·6 per cent. in the material submitted to him, believes cancer to be a not uncommon complication of gastric ulcer. H. Finsterer [8] found cancer in 26·6 per cent. of 175 resected callous ulcers; C. A. Pannett [9] in 10 per cent. of 41 resected ulcers, and V. Orator [10] in 30 per cent. of ulcers of the prepyloric region and 2 per cent. of ulcers situated elsewhere.

It can be regarded as certain that later statistics are not vitiated by the fallacy of regarding innocent, but disordered, growth at the fibrosed ulcer margins as malignant, and it may therefore be asked why some surgeons have found no examples of cancerous change in their resected material, whilst others give an incidence ranging between 10 and 30 per cent. The explanation is not far to seek. Every simple ulcer which exhibits malignant change is of the callous type. Such ulcers form adhesions to neighbouring organs into which they burrow so that their excision often becomes a matter of some considerable difficulty. Those surgeons who confine their resection operations to mobile ulcers will meet with a low cancer incidence in their material, whilst those who excise the callous adherent lesions will get a truer picture of what the real risk of malignant change is. The chance of malignant change is greater when the ulcer is near the pylorus, perhaps indeed as high as 30 per cent., but in general the risk of a gastric ulcer becoming cancerous would seem to be about one-third of this. As to the question whether this risk justifies extensive gastric resections, the answer can only be in the affirmative, as 10 per cent. is very considerably greater than the operative mortality of gastric resection, whilst subsequent cancer is only one of the less important causes of death in a patient suffering from gastric ulcer. After a properly performed partial gastrectomy the recurrence of symptoms from ulcer is a rarity.

[1] Arch. Int. Med., 1914, xiii., 208.
[2] Ann. Surg., 1918, lxvii., 715.
[3] Proc. Roy. Soc. Med., 1922, xv., 25.
[4] Brit. Jour. Surg., 1925, xii., 666.
[5] THE LANCET, 1923, ii., 823.
[6] Gastric and Duodenal Ulcer, 1923.
[7] Cancer Review, 1926, i., 223.
[8] Wien. klin. Woch., 1925, xxxviii., 295 and 321.
[9] Surgery of Gastro-duodenal Ulceration, 1926.
[10] Arch. f. klin. Chir., 1925, cxxxiv., 736

A HOSPITAL CENTRE FOR BIRMINGHAM.

IMPORTANT developments are announced in connexion with hospital policy in Birmingham—developments which put a new face on the situation. The General and the Queen's Hospitals had prepared and begun to carry out comprehensive plans for extension. The General Hospital had obtained by Act of Parliament the neighbouring St. Mary's churchyard for the purpose of a new out-patient and casualty department, and the Queen's Hospital had already erected new buildings. The Hospitals' Council, however, lately asked that these schemes should be suspended in order that the problem might be considered from a wider standpoint, and the governing bodies of the two institutions were invited to form a joint committee to consider the outlines of a scheme for a new hospital centre. This committee has now issued an important report which has received the approval of the boards of the two hospitals and of the Hospital Council. It is recommended that a new hospital centre shall be established on a site adjoining the University at Edgbaston, under the joint control of the General and Queen's Hospitals. To this end it is proposed that the two hospitals shall be amalgamated for all purposes and that the new hospital shall start with a minimum of 750 beds—a number based on the calculation that by 1931 a minimum of 2400 beds for general medical and surgical patients will be needed by the city, including those provided by the guardians of the poor as well as by voluntary boards. This ambitious and far-reaching scheme has been brought into the region of possibility by the generous gift of Messrs. Cadbury Brothers, which we reported last week (THE LANCET, Oct. 23rd, p. 884). Messrs. Cadbury offer to give the City Council 150 acres of land adjacent to the University, together with a donation of £5000 towards the initial expenses of laying out the site. The whole of the land is to become the property of the city, on the understanding that the City Council, in consultation with the Hospitals' Council, shall reserve 100 acres with power to grant long leases to the hospital authorities at a nominal rent, and it is hoped that the City Council will make the necessary roads and be responsible for the lay-out and maintenance of the remainder of the land for use as playing fields, which some of the schools urgently require. The council, needless to say, has gratefully accepted Messrs. Cadbury's offer, for the site has been admirably chosen as standing on high ground in the south-west of the city and on the confines of the pleasant residential suburb of Edgbaston. Though well away from the centre of the city it will be well served by railway, electric tram, and 'bus routes, and

it is just beside the University. At present the medical school is housed in the Mason College building in the centre of the city, and the clinical work is divided between the two general hospitals. Under the new scheme it is intended that new buildings for the medical school shall be erected in conjunction with the hospital, so that the whole of the work of the school—theoretical and practical—can be undertaken in a group of buildings on the same site. Formidable financial obstacles have yet to be surmounted before the great project can be accomplished, but the City of Birmingham has now the opportunity of founding a real hospital centre with ample space for development.

SCARLET FEVER AND STREPTOCOCCI.

RECENT results have gone far to show the correctness of the view that streptococci are the causal organism of scarlet fever. Most of the work on the subject has been done in this country and America, and it is therefore interesting to read results obtained in Tunis by that accomplished experimenter C. Nicolle, who, in collaboration with E. Conseit and P. Durand, has investigated the same problem.[1] Their experiments were for a long time directed towards the reproduction of the disease in animals by means of an assumed filtrable virus, whose presence they suspected in secretions and exudates. No positive results followed, although the attempts were numerous and various species of animals were employed. Concluding that scarlet fever did not lend itself to animal experiments, the investigators made attempts—necessarily restricted—to inoculate human subjects; but these attempts likewise failed. At this stage the work of the Dicks became known, and the conclusion was reached that the failures were due to the employment of immune subjects, and that their repetition on subjects selected by the Dick test might give other results. Not having the Dick toxin at hand, the workers in Tunis attempted to test for susceptible individuals by using the urine of a patient suffering from the disease, which afforded, in this case, a cutaneous reaction. By this means two susceptible individuals were selected. A third person, not tested for susceptibility, was inoculated in the tonsil with a fragment of tonsillar tissue from the scarlatinal patient and developed a severe sore-throat without the typical eruption. A culture of streptococci from the scarlet fever patient, in the fourth generation, was introduced into one tonsil of one of the susceptible persons with the result that a typical attack of the disease occurred after six days' incubation. The second susceptible subject was injected subcutaneously with a half c.cm. of the urine (which served, as we have said, as the Dick toxin); two days later this subject showed a generalised scarlatinal eruption and pyrexia, which the authors interpret as a specific toxic phenomenon. These experiments are few and open to objection; but it is of some importance that every observation bearing upon this problem should be recorded, and especially those in which genuine scarlatina appears to have followed inoculation with cultures of streptococci.

RESEARCH IN DAIRYING.

SINCE the National Institute for Research in Dairying was first established at University College, Reading in 1912, the work undertaken there has developed year by year. The Institute now comprises three main sections: dairy husbandry, chemistry, and bacteriology, coördination being secured through the agency of a professional committee, consisting of the heads of departments and certain members of the Faculty of Agriculture. Under the first section a number of different problems connected with the management and feeding of dairy stock have been tackled, including work on calf rearing and the detection of abnormal and vegetable-tainted milk. The chemical constitution and other properties of milk have presented a variety of more or less complicated problems. Studies have been made on the coagulation properties of milk and on calcium metabolism; physico-chemical methods have indicated the very significant part played by caseinogen in the control of the secretion of calcium in milk. The effects produced by very large doses of certain inorganic salts on the calcium content of the blood and of the milk of lactating cows have also been investigated; it appears to be difficult by such means to effect any significant alteration in these constituents or in the yield and composition of milk. The close inter-relationship of these problems is illustrated by the part played by the calcifying vitamin (vitamin D) in calcium assimilation and in the resulting calcification of the bones. A cow fed on a diet lacking in fat-soluble vitamins will deplete her skeleton to the extent of one-quarter of its calcium content in the endeavour to make up calcium-deficiencies in her milk. Experiments have been conducted on the vitamin content of the butter made from the milk of stall-fed cows in winter time. It has been demonstrated that such feeding may reduce the vitamin content of the butter to one-tenth of its summer value, but that the summer value in vitamin A may be obtained by adding cod-liver oil to the ration, the butter still remaining white. Other experiments have shown that there are differences in the vitamin content of winter foods in common use; for example, meadow hay is richer in these factors than seeds hay. The influence, if any, of the vitamin content of the food on the yield and composition of the milk is being investigated. Among other problems which have been solved by the Institute is the question of ropy milk. This has been shown to be due to at least two entirely different causes: the physical type of ropiness which appears when the milk is passing over the cooler and is not present in the bulk milk in the churn, and the more generally recognised type which causes the bulk milk to become ropy and which is due to the action of bacteria. Courses of "clean milk" instruction and demonstration are arranged by the Institute every year, a great deal of advisory work among farmers also being carried out. But the work of the Institute is still handicapped by lack of funds.

[1] Archives de l'Institut Pasteur de Tunis, 1926, tome xv., No. 3.

THE JUBILEE OF PROFESSOR SCHMIEGELOW.

ON Oct. 13th Dr. Ernst Schmiegelow, professor of oto-laryngology in the University in Copenhagen, celebrated his seventieth birthday by delivering his last lecture at the Rigshospital, thus finishing his active career there both as head of the clinic and as professor of his specialty. That he is not without honour in his own country was shown by the manifestations of esteem and regard from his townsmen and compatriots, who presented him with a striking portrait of himself painted by the well-known Danish artist, Henningsen. In addition, the brotherhood of laryngologists in other lands united to present him with a bas-relief portrait in bronze, by the Swedish artist, Gosta Carrell. This had been subscribed for by friends and admirers from many countries, under the leadership of Prof. Gunnar Holmgren (Stockholm), who, in their name, presented it to the Throat Clinic of the Rigshospital. In addition to numerous colleagues from Sweden and Norway the following laryngologists, among others, were present in testimony of the international character of the occasion: Profs. H. Burger (Amsterdam), H. Marschik (Vienna), G. Spiess (Frankfurt), C. von Eicken, L. Kuttner, and E. Flatau (Berlin), and Sir StClair Thomson (London). The foreign delegates were welcomed with much private hospitality. A special meeting of the Danish Oto-Laryngological Society was held on the previous day, presided over by Dr. Strandberg, when by invitation three communications were made. Prof. Burger spoke on the Education of the Partially Deaf Child. Prof. von Eicken read a paper on Indications for Operation in Sinus Disease, and Sir StClair Thomson gave a

lantern demonstration of Technique and Results of Laryngofissure in Intrinsic Cancer of the Larynx. Dr. Strandberg is connected with the Finsen Institute at Copenhagen and will read a paper at the Royal Society of Medicine on Friday, Nov. 19th, before the Tuberculosis Society, the subject being the treatment of laryngeal tuberculosis by heliotherapy and artificial light.

MONOCYTES AND BACTERIAL INFECTION.

A GENERAL view of the specificity of leucocytoses leads to the conclusion that eosinophile cells are stimulated by worms (trematodes, cestodes, and nematodes living in the bowel, blood, or tissues) and large mononuclears by protozoa (whether hæmamœbæ, trypanosomes, spirochætes, or the virus of chicken-pox), while bacteria, if they excite any leucocyte, stimulate neutrophiles. Lymphocytes and basophiles are not known to respond to any acute parasitic infection. It is therefore of much interest to find an organism, which appears undoubtedly to be a bacterium, and yet causes characteristically and constantly a high grade of large mononuclear leucocytosis. An unexplained mortality among the stock rabbits of the Cambridge pathological laboratory was investigated by Dr. E. G. D. Murray in conjunction with Dr. R. A. Webb and the late Dr. M. B. R. Swann,[1] and after some trouble a small Gram-positive bacillus was found in the organs and isolated in pure culture; with it the disease was reproduced, and especially in sublethal doses a considerable leucocytosis, due exclusively to an increase in the large mononuclears, was regularly produced. The organism does not appear to have been described before, and the authors, falling into the easy fallacy of definitive names, have called it *Bacterium monocytogenes*. Its characters are of technical interest, but curiously enough Dr. Harvey Pirie has recently found the same microbe in a gerbille in South Africa. Dr. Murray and his colleagues describe also some experiments which emphasise the specificity of leucocyte response as clearly as Ehrlich's old observation that pyogenic infection in a person with a high grade of eosinophilia in the blood excites neutrophiles and not eosinophiles. On intrapleural injection of broth or *B. coli*, the cells of the resultant exudate were mostly polynuclears even when the blood showed a high mononuclear leucocytosis due to a previous infection with *B. monocytogenes*. If under the same conditions *B. monocytogenes* was injected into the pleura, the exudate contained large numbers of mononuclears. They also show that large mononuclears, which are poor phagocytes for bacteria in general, will eat their new bacillus as actively as neutrophiles.

A YORKSHIRE CANCER PAMPHLET.

THE Medical and Scientific Committee of the Yorkshire Council of the British Empire Cancer Campaign, under the chairmanship of Sir Berkeley Moynihan, has issued an attractive little volume of 75 pages entitled "Notes on Cancer for Medical Men." The chief object is to preach the gospel of "early diagnosis and early operation" as the only effective means of fighting cancer. The main part of the book is taken up with a short and clear account of the clinical aspects of cancer in the different sites of the body; the fact is emphasised that cancer in its earliest stage is a local disease and can then be certainly cured by operative removal. These two fundamental statements can be made to-day with the certainty given by experimental evidence, and it seems a pity that in the chapter on experimental cancer research this point has been completely missed. Two short statements are appended intended to educate the public on cancer, and separate copies of these will be given to any medical man desiring to distribute them among his patients. They are clearly written and could hardly be bettered. In the introduction to the "Notes" the statement is made that cancer is neither infectious nor contagious; the same statement has been issued by the Cancer Conference in Mohonk. There is, of course, general agreement that cancer is not contagious. But if Gye's view, which is referred to in the book, is correct and a living virus plays a part in the ætiology of cancer, cancer must be considered as an infection; it seems inadvisable that in a book of this kind those aspects of the cancer problem which are still the object of active investigation should be prejudiced by statements which might be misinterpreted. We are asked to state that a free copy may be obtained by any medical man free on application to the office of the Yorkshire Council, 47, Park-square, Leeds. The "Notes" are certainly worthy of a wide circulation.

THE PREVALENCE OF POLIOMYELITIS AND POLIO-ENCEPHALITIS.

THERE is a normal increase in the autumn each year of reported cases of poliomyelitis and polio-encephalitis, but the increase this year has been larger than usual, and groups of cases have occurred in several areas. We have already given[1] some details of the outbreak in Leicestershire, with special incidence in Leicester itself where 73 cases have been reported up to the present, a considerable number in older children and some in adults, and where half a dozen deaths, chiefly of the fulminating type, have occurred. Dr. C. K. Millard then stated that no more than a single case had occurred in any one house, and that practically no connexion between the cases had been traced. He suggested that under normal conditions the milder cases of poliomyelitis are apt to escape notification. In the week ending Oct. 16th, 62 cases of acute poliomyelitis and 16 cases of acute polio-encephalitis, 78 taken together, were notified from England and Wales, the counties reporting more than three cases being Kent 23, Leicester 8, and Middlesex 5. The outbreak in Kent has been practically confined to Canterbury and Thanet, where an ill-founded rumour of encephalitis lethargica at first gave rise to alarm. In Broadstairs 53 cases were notified between Oct. 14th and 25th, most of them of a mild type, only two deaths having occurred among them. The local sanitary authority of Broadstairs has issued a circular in which it is stated that the disease is carried from person to person, infection being taken through the nose and mouth, but, so far as is known, not carried by water or milk. Warning is issued against the gathering of children together; no child, it is said, should be allowed to enter any house where there is a case of sickness; the sick should be isolated from the healthy, and if strict isolation and appropriate nursing cannot be obtained at home the patient should be treated in the isolation hospital. Those who have been in contact with the sick should be isolated for three weeks, and the patients themselves for six weeks. Persons brought into contact with the patients are advised to disinfect nose and throat with antiseptic solution (pot. permang. 1 in 4000 normal saline, or hydr. perox. 1 in 100) by spray or snuffing from the palm of the hand, done in the first instance under medical supervision.

Dr. Robert Cunyngham Brown, C.B.E., who has been appointed a Commissioner of the Board of Control to fill a vacancy caused by the retirement of Dr. Robert Welsh Branthwaite, C.B., was Deputy Commissioner to the Board of Control for Scotland before accepting the position of Deputy Director-General of Medical Services at the Ministry of Pensions. Some of his earlier writings on the causation of nervous disease appeared nearly 30 years ago in our own columns.

[1] Journal of Pathology and Bacteriology, 1926, xxix., 407.

[1] THE LANCET, Sept. 25th, p. 678.

Modern Technique in Treatment.

A Series of Special Articles, contributed by invitation, on the Treatment of Medical and Surgical Conditions.

CXCV.—THE TREATMENT OF TRACHOMA.

TRACHOMA is a chronic contagious disease in which such acute manifestations as occur are the result of superadded infections with well-known bacteria. The cause of trachoma itself is as yet uncertain. It manifests itself in many widely differing forms, all of which are stages in the evolution of the disease, each stage requiring appropriate treatment.

The disease is conveniently divided into four stages, known as trachoma I., II., III., and IV., according to the comparative prominence of the three features—follicles (or granulations), papillary hypertrophy, and connective tissue formation.

In Trachoma I., seen soon after infection has occurred, tiny grey pinhead follicles are sparsely scattered on the conjunctiva of the upper tarsus. Trachoma II. has three subdivisions: (*a*), in which enlarged follicles predominate; (*b*), in which a papillary hypertrophy coexists with the follicles (this subdivision is split up into trachoma II. (*b'*), which is unmixed trachoma, and trachoma II. (*b''*), which is trachoma complicated by spring catarrh); (*c*), in which trachoma is complicated by a superadded infection with the Koch-Weeks bacillus, or the Morax-Axenfeld bacillus, or the gonococcus (a common non-venereal conjunctival infection in the Near East). Trachoma III. is the stage in which cicatrisation has begun. Trachoma IV. is cured trachoma, in which cicatrisation is complete.

Trachoma I.

This stage may be present without causing any symptoms and without producing obvious signs until the lid is everted, when tiny pinhead follicles are seen on the conjunctiva of the tarsus and at the retro-tarsal fold, more rarely in the fornix. With a lens or slit lamp may be seen a system of blood-vessels invading the cornea, associated with tiny follicles between the corneal epithelium and Bowman's membrane.

Treatment of trachoma at this early stage is begun by the application of silver nitrate solution 2 per cent., rubbed on the everted lids daily with a pledgelet of cotton-wool wound round the end of a special glass rod. The cotton-wool must be of good quality or it will be impossible to make a neat brush. A fresh rod is used for each eye; after use it is placed in an antiseptic solution and left there until it can be sterilised by boiling. If several patients are being treated the rubber gloved hands should be immersed in an antiseptic solution such as perchloride of mercury, 1 in 1000, in 70 per cent. spirit. The action of silver nitrate is not imitated by the organic silver compounds, such as argyrol, protargol, and others. If, when the patient is next seen after a rubbing, there is any coagulum or necrotic material remaining, the next treatment should be postponed until the slough has separated.

If there is much discharge this treatment should be carried out twice a day. The eyelids and the conjunctival sacs should also be bathed with a solution of perchloride of mercury, of a strength, for adults 1 in 5000, for young children 1 in 10,000. The eyelids should be anointed nightly with some ointment.

This treatment must be continued for many months. Under its influence the trachoma follicles may become absorbed without leaving any trace of cicatrisation; more usually, however, faint lines of cicatricial tissue are left (stage IV. of the disease). In the majority of cases the treatment is not continued for a sufficiently long period, and trachoma I. passes into II. or III.

It is not necessary or even advisable to neutralise the silver nitrate after its application with salt solution, as this is done quite efficiently by the tears. It is advisable to vary the treatment from time to time. Instead of silver nitrate, cyanide of mercury 1 per cent., copper sulphate 10 per cent., perchloride of mercury ¼ per cent., may be employed. In addition, the instillation t.d.s. of zinc sulphate ½ per cent., or zinc chloride ¼ per cent., may be useful.

It must be remembered that many cases of trachoma pass into the cured stage IV. without treatment of any kind and without any complications; also that monocular trachoma is not uncommon. Treatment by means of a pencil of carbon dioxide snow in this stage may be satisfactory. It must be applied with considerable judgment or serious scarring may result. Treatment by means of radium has in my hands been unsatisfactory. Local phototherapy for trachoma has been employed experimentally by means of the mercury-vapour lamp suitably screened acting on the everted lids.

Surgical treatment is not usually indicated in trachoma I.; however, radical cure of the disease may occasionally be attempted, when it is confined to the conjunctiva of the upper tarsus, by means of removal of the tarsus with the diseased conjunctiva overlying it. Subconjunctival injections behind the retro-tarsal fold have been employed. They are attended with considerable inflammatory reaction, and should only be used by specialists.

Trachoma II.

In trachoma II. (*a*) the gelatinous follicles are ruptured, mechanically allowing the escape of their contents. This may be carried out by means of Graddy's forceps assisted by a curette. Excessive bleeding is prevented by thoroughly bleaching the conjunctiva beforehand with adrenalin chloride solution, 1 in 1000. A general anæsthetic is frequently necessary, though in a large number of cases a thorough infiltration of the lids with novocaine solution 1 per cent., with instillation of 4 per cent. cocaine hydrochloride into the conjunctival sac is quite adequate; 10 or 15 minutes must be allowed for the anæsthetic solution to act.

The upper lid is everted and Graddy's forceps are applied to the everted conjunctiva and withdrawn, carrying in front of their concavity the gelatinous contents of the follicles which are ruptured by the passage of the instrument. If follicles are present in the fornical conjunctiva, previous to using Graddy's forceps the retro-tarsal fold should be seized with a pair of toothed forceps in order to allow of the lid being re-everted; the fornix is then curetted. The lower lid should be curetted, since unless the conjunctiva is loose Graddy's forceps are not applicable.

Perchloride of mercury solution, 1 per cent., is then applied to the bleeding conjunctiva by means of a pledgelet of good quality cotton-wool wound round a glass rod. If necrosis of the conjunctiva occurs, the use of escharotics should be deferred until the necrotic membrane has disappeared. Otherwise the perchloride should be applied once daily.

Improvement should have occurred at the end of a week, and at the end of a fortnight the commencement of the change into trachoma III. should be observed. At the end of a month a network of cicatricial lines should be seen. This improvement is usually permanent, although in the absence of further treatment relapse is liable to occur with a redevelopment of follicles. The treatment may be supplemented by the use of zinc sulphate drops ½ per cent., or zinc chloride drops ¼ or ¼ per cent., bathing with an antiseptic solution such as perchloride of mercury, 1 in 5000, and anointing the edges of the lids with ung. hydrarg. ammon. dil. The mechanical treatment sometimes needs to be repeated after 7 or 15 days. Inevitably some cases develop entropion, seeing that the process of cure depends on the laying down of scar tissue. If inflammatory signs and excessive discharge suggest a superimposed conjunctivitis, no operative procedure should be undertaken. In such cases the conjunctivitis should first be treated with silver nitrate, 2 per cent.

Invasion of the Cornea.—When ulceration from trachomatous invasion of the cornea occurs, silver nitrate, 2 per cent., should be applied to the conjunctiva once or in severe cases twice daily.

The eye should not be tied up except out of doors, but should be bathed by the patient every ten minutes or so during his waking hours with perchloride of mercury solution 1 in 5000, or a weaker solution if the skin becomes irritated. In ordinary cases the pupil should be kept dilated

with atropine; but if a perforation seems likely to occur atropine should be discontinued.

Pannus.—Treatment of pannus is for the purpose of improving deteriorated vision, but in advanced cases scar tissue obstructs the nutrient flow between the corneal corpuscles and renders necessary the persistence of pannus vessels. I therefore believe that attempts to reduce the vascularity of the cornea in trachoma are harmful.

When there is great thickening of the tarsus together with the presence of follicles of the conjunctiva, the radical operation of combined excision of the tarsus with the overlying conjunctiva is much the best procedure, provided the conjunctiva of the fornix is free from follicles.

Trachoma II. (*b'*) may be treated by curetting and application daily of perchloride of mercury 1 per cent., or more satisfactorily by the combined excision of tarsus and conjunctiva overlying the tarsus. This operation may be performed for upper and lower lids.

Trachoma II. (*b''*) must be treated by the combined excision operation. Even after this it is common for symptoms of spring catarrh to persist.

Trachoma III.

In this stage cicatrisation has definitely begun, or is more or less advanced. Islands of inflamed conjunctiva or of trachomatous follicles are seen to be surrounded by a network of fine lines of connective tissue. In this stage spots of necrosis often result from the pressure of the shrinking connective tissue (post-trachomatous degeneration). The necrotic tissue may remain as a cyst or may become calcareous.

The beginning of this stage is best treated by the application of perchloride of mercury solution, 1 per cent., daily. This may be alternated with the use of copper sulphate solution 10 per cent. The old-fashioned copper sulphate stick is very painful, may cause excessive scarring, and when many patients are being treated carries infected mucus from one to another. In some cases which are not apparently very severe corneal complications occur in the form of small white spots of infiltration situated beneath the superficial epithelium, not staining with fluorescein. Copper should never be used in this condition; daily treatment with silver nitrate solution, 2 per cent., together with frequent skilled hot bathings, and atropine drops 1 per cent., should be substituted. In certain selected cases the combined excision of tarsus and overlying conjunctiva may be satisfactorily performed. This operation has the advantage of curing entropion and of preventing its occurrence, for entropion depends on cicatricial changes in the tarsus; when the tarsus has gone it cannot occur. When the operation is performed with ordinary skill there is never any ptosis afterwards, and from inspection it is impossible to know that any operation has been performed.

The complications of trichiasis and entropion frequently occur in this stage of trachoma. The three operations, Streatfield's, van Milligen's, and Saunders's, for relieving these conditions cannot here be described.[1]

The necrotic foci mentioned as frequently found in this stage merely require opening, and calcareous particles, if present, picking out.

Trachoma IV.—Prophylaxis of Trachoma.

Trachoma IV., being the stage of cured trachoma, requires no treatment unless a relapse occurs.

Prophylaxis.—It is impossible here to deal with the prophylaxis of trachoma from a general, social, or institutional standpoint, but a few words must be said as to prophylaxis in the family of the sufferer. If possible, the infected person should have a separate bedroom; in any case a separate bed. He should not use the same washing utensils, nor the same towel or table-napkin. Roller towels should be abolished from the house. All members of the family should have instilled into their eyes as a prophylactic drops of zinc chloride solution, ½ or ¼ per cent., twice a day. Adequate treatment for the infected person may have to be persisted with for years.

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[1] MacCallan: Transactions of the Ophthalmological Society, 1925.

Special Articles.

BRITISH ORTHOPÆDIC ASSOCIATION.

THE ANNUAL MEETING.

THE ninth annual meeting of this Association was held in London on Oct. 22nd and 23rd. On the morning of the 22nd the meeting took place at the house of the Royal Society of Medicine. After the short business session, Mr. H. A. T. FAIRBANK gave his presidential address on Some General Affections of the Skeleton. He showed a large number of clinical photographs and radiograms, illustrating the various points in the co-relation of certain of these obscure bone conditions.

The subject selected for discussion at the morning session was

Injuries of the Carpus.

Mr. MAX PAGE, who opened, commented on the fact that the knowledge of this complicated subject was of comparatively recent date. He quoted largely from Mouchet, Destot, and Kellogg Speed, and presented a simplified classification based on the findings of the French school. He dealt in some detail with the treatment and prognosis.

Mr. S. T. IRWIN gave a careful analysis of the records of the Royal Victoria Hospital, Belfast, during a five-year period. He reported the incidence of each particular fracture, the period of disability, and the functional end-result. Mr. H. PLATT suggested a classification, similar to that of Mr. Page, and reported in detail the results of carpal injuries from his fracture clinic at Ancoats Hospital, Manchester, over a five-year period. Mr. THURSTAN HOLLAND, Mr. R. C. ELMSLIE, and Mr. N. DUDLEY BUXTON carried on the discussion. Sir ROBERT JONES gave the results of his personal experience, and described the treatment he was accustomed to employ. He said that, with a fractured scaphoid, if the wrist moved freely under anæsthesia, he immobilised for three weeks in dorsiflexion and the end-result was good. He had found that if the wrist did not move easily under the anæsthetic prognosis was less good. He did not consider that removal of the whole or part of the scaphoid, although sometimes necessary, resulted in a perfect hand.

Clinical Meeting.

The clinical meeting on the 22nd was held at St. Thomas's Hospital. Two operations were performed, Mr. W. R. BRISTOW removing a torn cartilage from the knee-joint, and Mr. PAGE arthrodesing a hip. This was followed by a clinical demonstration; Mr. BRISTOW showed a group of patients treated in the orthopædic department of the hospital, illustrating points of interest in the surgery of the joints and bones. The first group showed the results obtained from a modified arthroplasty of the hip, the reconstruction operation devised by Whitman—viz., excision of the head, remodelling of the neck, and lowering of the trochanter. Three patients whose hips had been arthrodesed were shown for comparison. Four patients were shown to illustrate the end-results of the treatment for recurrent dislocation of the shoulder; one cured by a deltoid muscle sling, one by repair of the glenoid ligament after the Clairmont-Ehrlich operation had failed. The other two patients were cured by a bone operation to raise the rim of the glenoid fossa, the glenoid ligament being found torn and so shrivelled as to be incapable of repair. Two patients illustrated reconstruction of the elbow-joint, and one who had had a fractured internal epicondyle removed from the interior of the joint. This patient, whose elbow was stiff for some long time, had recovered full movement. Two patients in whom the ankle-joint had been arthrodesed for old mal-united Pott's fracture were shown walking well and without pain. Patients were shown illustrating the result of repair of muscle and tendon, bilateral

rupture of the ligamentum patellæ, repaired by a free fasciæ graft, and bilateral rupture of quadriceps by transplantation of tensor fasciæ femoris to patella. Cases were shown of chronic sclerosing osteomyelitis (Garré), fibrocystic disease of the neck of the femur, dealt with by curetting and grafting, hæmophiliac knee, and adolescent coxa vara treated by open operation. A group of patients with affections of the knee-joint were shown illustrating the end-results after synovectomy, cheilotomy, patello-femoral arthroplasty. Mr. PAGE showed two patients in whom he had removed five inches of bone from the femur to shorten the leg, and a patient who was cured of a clicking jaw by the removal of the inter-articular cartilage.

The members were entertained to tea in the Shepherd Memorial Hall by invitation of Miss Lloyd Still, the matron of St. Thomas's Hospital, after which a short visit was paid to the orthopædic wards. Dr. J. B. MENNELL then gave a demonstration in the massage department of the methods he employs in manipulating the joints. He explained the various points of his technique.

Short Papers.

The morning of the 23rd was devoted to short papers.

Mr. E. P. BROCKMAN reported several cases of renal rickets and showed a series of radiograms. He also showed a tibia from one of the patients and for comparison the tibia from a rachitic patient, and a normal tibia from a child of the same age. He had investigated the microscopic changes about the growth disc, and showed a series of coloured drawings illustrating the changes which he had found.

Mr. G. PERKINS reported the end-results of the operation of excision of the head of the first metatarsal in 50 patients from the orthopædic department of St. Thomas's Hospital. He found that from the patient's point of view the operation gave a good result in 96 per cent. of cases. He called attention to the fact that pain about the forefoot was not relieved by excision of the head, and that free mobility must be restored to the toes. He suggested that the bad results, associated in the mind of some surgeons with this operation, were due to coexisting pain about the forefoot and that treatment for the two conditions should be simultaneously undertaken. Mr. Perkins's paper was discussed by Prof. MURK JANSEN, Mr. T. H. OPENSHAW, Mr. A. B. MITCHELL, Mr. ELMSLIE, Mr. T. ARMOUR, Mr. BRISTOW, Mr. W. A. TRETHOWAN, Mr. ROCYN JONES, and others.

Mr. C. LAMBRINUDI described an operation which he had devised for the cure of paralytic drop-foot, and showed two patients.

Mr. BROCKMAN reported a case of femoral aneurysm arising in a boy suffering from Pott's disease of the spine. He showed the vessel which had been excised by Sir Cuthbert Wallace, and a microscopic section of the artery wall showing local tuberculous disease.

Mr. J. F. BRAILSFORD showed radiograms of the spine from the patients illustrating spondylolisthesis—erosion of the bodies caused by aneurysm and the localisation of a foreign body.

Owing to shortness of time papers by Mr. Page, Prof. Jansen, and Mr. J. B. Barnett, which were to have been presented, were taken as read.

Visit to Orthopædic Hospital at Pyrford.

On Saturday afternoon some 40 members visited St. Nicholas' and St. Martin's Orthopædic Hospital at Pyrford, in Surrey. This open-air hospital of 160 beds, which belongs to the Waifs and Strays Society, is staffed by the orthopædic department of St. Thomas's Hospital and Dr. T. M. Hardy, of Byfleet, the local physician. Members were shown round the hospital and visited the open-air wards, after which a clinical demonstration was given. A number of patients was shown, including a group of eight cases of pseudo-coxalgia with serial radiograms showing the various changes, over a three-year period, and for comparison two patients with flattening of the head of the femur and cavitation of the neck.

THE ANNUAL DINNER.

During the session of the British Orthopædic Association held last week, the dinner of the Association took place on Friday, Oct. 22nd, at the Café Royal, London. Mr. H. A. T. FAIRBANK, the President of the Association, was in the chair, and was supported by King MANOEL, of Portugal, and a group of representative guests.

"The Prosperity of the Association" was proposed by Sir JOHN BLAND-SUTTON in unexpected and amusing terms, under which lay the serious message that the public belief in osteopathy must be countered by resolute work on the part of the rising school of British orthopædic surgeons. The prospect lay before these surgeons, he said, of taking over the whole of limb surgery in proper relation to surgery in general, the era of steel and leather encasement having given way to scientific principles; and he urged that the increasing number of men attracted to orthopædics should learn the lessons of comparative anatomy in relation to the treatment and manipulation of joints from the extraordinary range and delicacy of action possessed by the lower animals, many of whom were able to scratch any part of their persons with their hind limbs, while the elephant, planted like a rock on enormous pillars, could execute tiny gentle movements. He warmly recommended to the attention of orthopædic surgeons the unhappy moral side of many of their patients, whose outlook on life was prone to be morose owing to their physical handicaps. The reward of successful treatment that the orthopædic surgeon might obtain was instanced, he said, by the gospel miracle where the cripples "went on their way rejoicing," while poets, from Homer downwards, had testified to the fact that physical failings might warp in all their social relations the mentality of the victims, Thersites being a classical example of this decadence.

The PRESIDENT, in reply, alluded to the presence of a representative group of guests and testified especially to the debt owed by orthopædic surgery to Sir Robert Jones and King Manoel, of Portugal, who throughout the war had worked untiringly in close association, their pertinacity having succeeded in instituting a general organisation of orthopædic treatment for the sufferers in the war. He thanked the authorities and staff of St. Thomas's Hospital, and the President and Council of the Royal Society of Medicine for the valuable facilities accorded to the orthopædists in session, and in acknowledging Sir John Bland-Sutton's appreciation of the growing specialty, he mentioned that it was the intention of the Association to publish a journal recording their activities.

The toast of "The Guests" was proposed in eloquent terms by Sir ROBERT JONES, and was replied to by Sir ARTHUR STANLEY, Chairman of the Joint Council of the British Red Cross Society and Order of St. John. Sir Arthur Stanley, speaking with great gaiety as one "who had for many years been encased in steel and leather," found that the implication of moroseness alluded to by Sir John Bland-Sutton might be a very convenient one in his position as treasurer of St. Thomas's Hospital, inasmuch as when demands were made upon the institution (as they might be by Mr. Rowley Bristow in behalf of his orthopædic department) inability to meet those demands would now be attributed to an unfortunate infirmity of character.

In response to the wish of the gathering, King MANOEL also replied for the guests, though, as he said, he was hardly a guest, inasmuch as he was an honorary member of the Association who had ceased

active coöperation. King Manoel made moving references to the difficulties which his "twin brother," Sir Robert Jones, and himself had been compelled to face in the early days of the war, when the establishment of an orthopædic centre at Shepherd's Bush was first decided upon. He told how the movement had spread till other centres, great and small, were established in considerable number, and pointed out that the experience thus obtained by the public, in learning what could be done, by the medical profession, and by the surgeons, in learning how to do it, was now splendidly available for sufferers from industrial accidents.

"The Health of the President" was proposed by Prof. MURK JANSEN (Leyden), when Mr. FAIRBANK, in reply, said that the detailed labour had fallen upon Mr. R. C. Elmslie, the Vice-President of the Association, and Mr. Bristow, orthopædic surgeon at St. Thomas's Hospital, where the excellently attended meeting of the day had been held. Mr. BRISTOW also replied.

At various intervals between the speeches Mr. Victor Marmont, a pianist, accompanied Mr. Tom Kinniburgh, who sang an assortment of suitable songs in a spirited and artistic manner which should make him in request at similar gatherings.

AMERICAN PUBLIC HEALTH ASSOCIATION.

FIFTY-FIFTH ANNUAL MEETING.

(FROM AN OCCASIONAL CORRESPONDENT.)

THE annual meeting of the American Public Health Association was attended by health officers and others interested in the promotion of public health from all parts of the United States, from Canada and from South America. The conference assembled at Buffalo N.Y., on Oct. 11th and lasted four days. In this time a great amount of scientific work was reported and discussed, the various sections meeting synchronously, so that it is impossible to mention in brief space the greater part of the subjects raised. The most notable trend observed, however, was an inclination to seek a new orientation in public health work; one that should mobilise the general practitioners of medicine and engage the support of all the educational forces of the country.

Presidential Address.

The note of appraisal was sounded in an eloquent opening address by the President, Prof. C.-E. A. Winslow, of Yale University, who attributed the astonishing progress of the last 50 years to three elements in the public health movement: environmental hygiene, laboratory research, and education. But he pointed out that these methods had not achieved uniform success in combating the different diseases. Comparing statistics made for Manhattan and the Bronx in 1873–75 with figures compiled for greater New York in 1923–25, he showed that mortality-rates have fallen much more for some diseases than for others (scarlet fever 99 per cent., diphtheria 95 per cent., tuberculosis 79 per cent., acute respiratory diseases 53 per cent., and all causes together 42 per cent.). Three diseases show in this period a very marked increase in mortality: cancer 176 per cent., heart diseases 187 per cent., and diseases of the arteries 650 per cent. This new situation demands new methods. The early recognition of disease and attention to personal hygiene are obvious lines of defence: a man may die at 70 because he had an infected tooth at the age of 12. Mental hygiene is destined to play a rapidly increasing rôle (perhaps some day a preponderant rôle) in the public health movement. Since early diagnosis is so important, all physicians must coöperate in discovering early signs of disease. But since the public will not pay for medical advice until actual sickness is experienced some new way of remunerating the physician must be discovered. Dr. Winslow admitted that he had once been sceptical of the value of national health insurance, but as the result of a recent visit to England under the supervision of the Ministry of Health, he had found the Act "working better than its unsympathetic critics would have thought possible five years ago." Dr. Winslow was careful not to advocate any particular scheme of social medicine, though he made good fun of those who have an unreasoning fear of an ill-defined bogy that is called "State medicine."

The Dollar Value of a Life.

In a paper on the Economics of World Health, Dr. Louis I. Dublin, of the Metropolitan Life Insurance Company, gave some arresting figures of the economic value of human life. Taking males in the $2500 per annum salary class and subtracting from their wage-earning capacity the cost of their maintenance till death, he put the present cash value of each individual at the age of 18 as $29,000. By similar calculations he makes the vital capital of the United States five times as great as its material resources. The application of our present knowledge of preventive medicine would, he believes, mean a saving of six billion dollars yearly to the United States. In the last 20 years the Metropolitan Life Insurance Company has spent 20 million dollars in the health supervision of its industrial policy-holders, reducing the mortality by 30 per cent. (double the fall in the general population) and saving the company 43 million dollars.

Death-rates of Male White Physicians.

In a study of the above rates by age and cause, Dr. Haven Emerson and Miss Harriet E. Hughes brought out the rather remarkable fact that 16·9 per cent. of the 2544 physicians who died in 1925 were reported to have died from ill-defined or undetermined causes. The death-rates from all causes among doctors in 1925 were lower than those for "all occupied males" in 1920 in the age-groups 25 to 44 years and 65 years and over, but almost identical in the age-groups 45 to 64 years. The specific death-rates for physicians from organic heart disease, pneumonia, and diabetes were found, on the whole, to be decidedly higher than that for all occupied males in the corresponding age-groups. These figures suggest that a greater emphasis on preventive medicine is necessary in the teaching of the medical schools.

A group of teachers of hygiene in colleges met for the first time at this year's conference. They were addressed by Dr. John Sundwall, of the department of public health at the University of Michigan, Dr. Thomas A. Storey, of Standford University, California, and Dr. H. G. Rowell of Columbia University, New York. The meeting was very well attended and a committee was appointed to continue the organisation of this group and to coöperate with the American Student Health Association.

A local committee provided a very attractive programme of entertainment, including a visit to Niagara Falls, where the delegates were entertained by the Shredded Wheat Biscuit Company, and subsequently saw the falls illuminated.

The new president of the Association is Dr. Charles V. Chapin, of Providence, R.I., and the meeting place for the year 1927 is to be the city of Louisville in Kentucky.

EXTENSION OF EVESHAM HOSPITAL.—The difficulties of small country hospitals are well illustrated by the attempt that is being made to obtain the means of enlarging this cottage hospital. Since 1880, its first year, the number of patients has increased eleven-fold, whereas subscriptions have increased only three-fold. The population of the district served is growing, and the medical staff are constantly troubled by the obstacles in the way of dealing with urgent cases. There are 14 beds and 2 cots, and it is proposed, as a palliative, to erect a women's ward of 12 beds and a children's ward containing 4 cots, to improve the operating theatre, and provide other necessary adjuncts.

MEDICINE AND THE LAW.

Intoxicating Liquor or Patent Medicine?

Is "Wincarnis with quinine" an intoxicating liquor or a patent medicine? The inquiry came before the courts in relation to the excise and the provisions of the Licensing Acts. The High Court seems to answer that it is both. A chemist and druggist, who in his shop at Brighton sold a policeman a bottle of Wincarnis with quinine, was the holder of an excise licence authorising the sale of patent medicines; moreover, the bottle wrapper bore the usual excise label declaring that medicine stamp duty had duly been paid on the contents. But the chemist did not also hold a justices' licence entitling him to be a retailer of intoxicating liquor. The Brighton bench held that by this omission he had committed an offence; they fined him £1 and ordered him to pay the analyst's fee. The point was reviewed by the High Court last week upon a case stated by the magistrates and the decision was upheld. The magistrates had found that the liquid was an intoxicating liquor, was medicated, and tasted of quinine. The High Court had only one question to consider—namely, whether there were materials whereon the magistrates could reach the conclusion which they in fact reached, that this liquid was wine. The court was satisfied that the magistrates had such materials; indeed, there were very scanty materials to the contrary. Before the Brighton justices a policeman had testified that he went to the chemist's shop one day in January last and asked for a bottle of Wincarnis. The chemist replied that he did not stock it and advised him to try a wine merchant. A few days later the persistent policeman was able to buy a bottle of the desired liquid at the same chemist; he found that the advertisements upon the wrapper bore statements that it was "made with choice wine," "contains one grain of quinine to the ounce to meet the requirements of the Board of Inland Revenue," "contains 28 per cent. of proof spirit," and advised that the bottle should not be shaken "as there is occasionally a little sediment from the wine after bottling." All these matters were prima facie evidence that the liquid was made with wine, and no rebutting evidence was adduced. The analysis indicated the presence of 27·99 per cent. proof spirit (equal to 13·99 per cent. of alcohol) and 1·2 gr. of quinine to the fluid ounce. The British Pharmacopœia was quoted as showing that a mixture containing one or more grains of quinine per fluid ounce was considered a medicine, and a good port wine was stated to contain 30 per cent. of proof spirit.

On the appeal it was argued for the chemist that the true test was palatability. Hosts do not circulate after dinner a decanter of "Wincarnis with quinine" in place of port; the liquid, as the magistrates said, "tasted of quinine," and quinine is bitter and unpleasant to the palate. It was answered that there are recognised beverages of which quinine is an ingredient. As the Lord Chief Justice observed, it is a question of degree. How much quinine is necessary to make wine cease to be wine? At one end of the scale a man might put a very little medicine of a pleasant taste into a very large quantity of good wine; at the other end he might put a large quantity of nasty medicine into a small quantity of indifferent wine. The magistrates in effect said that the liquid in the bottle sold at Brighton was wine, and there was no ground for upsetting their finding. Abandoning for once the traditions of judicial ignorance of the ways of the world, Lord Hewart added some shrewd remarks on the commercial aspect of the case. The commercial problem, he said, was how to put enough medicine into the wine to make it cease to be wine for the purpose of argument, and at the same time not make it unpalatable to the men, women, and children who would drink it—"especially those women who thought they suffered from nervous disorders and wanted an excuse for drinking port at 11 o'clock in the morning."

Unregistered Practitioner Convicted.

Claiming to be able to cure leprosy, diabetes, cancer, appendicitis, consumption, as well as many other minor and major ills, Emil Kumst was found guilty at Pretoria last month on 12 counts of contravening the Medical, Dental, and Pharmacy Act by practising as a doctor while unregistered. He was sentenced by the magistrate to a fine of £120 or 168 days' hard labour. Notice of appeal was given. Kumst, who had a well-advertised business for "pure natural oils" at Pretoria for some time, sold his mixture at between 17*s.* and 35*s.* a pound. According to the Government analyst, the actual cost of the mixture, which consisted of paraffin oil, eucalyptus oil, turpentine, sperm oil, and alkaline water, was about 4½*d.* a pound.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Accommodation for Encephalitis Lethargica.

SOME months ago the Scottish Board of Health held a conference to arrange some practicable method of dealing with certain types of encephalitis lethargica. The Glasgow Parish Council came forward with an offer of some 60 beds in the fine hospital at Stobhill, and their scheme is now in full operation. The method of selection of cases is this. When accommodation is wanted the medical officer of health of the area applies to the Board for a special form, which covers (1) acceptance by the local authority of responsibility for the case, and (2) a medical report with sufficient detail to enable the Board to judge whether the case is suitable for admission. In this way it is possible to make the most profitable use of the beds, and the parish council provides expert medical treatment and nursing on terms arranged. But apart from the special "local authority patients," the Council has had to provide for cases among the ordinary poor. At present the numbers in Stobhill are rapidly approaching a hundred, and there is still a long waiting-list in Glasgow, not to speak of other parts of Scotland. The cases are in charge of a visiting neurologist, who is also responsible for the mental observation wards, and the records and results of this institution are sure to be of great value in the study of a disorder that must still be regarded, pathologically and clinically, as a puzzle. The view is gaining ground that the great outburst of the disease is over and that we are now getting its late effects. The difficulty, in many cases, of determining the differential diagnosis is, of course, well known. Often the sequelæ seem to be the only proof that an alleged attack of influenza or similar symptom-group was really encephalitis, but when the true causation is discovered the facts will doubtless fall into their place. Meanwhile the disease is creating a troublesome problem, and the notifications, though small compared with those of the leading infections, are still considerable.

An Experiment by Civil Servants.

Rather more than a year ago a new society was formed called the East of Scotland Civil Service Association. It was registered as a limited company not for profit and the membership was at first restricted to 1500, but at a very early stage this limit had to be raised by another thousand. Though the members are scattered from the Orkneys to Portsmouth the vast majority of them live within 20 miles of Edinburgh. The association runs a nursing home which reflects great credit on the management. No doubt the special conditions of the Civil Service make possible many economies that might be beyond the powers of a mixed community—for example, the method of collecting annual subscriptions through the salary warrants, and the immediate availability of skilled administrators both medical and lay. But the main fact is that the nursing home has been proved to serve its purpose, which is to secure first-class surgical and

gynæcological treatment at fees within the range of the various grades of civil servants. During the year 148 members' cases, involving 122 operations, have been admitted, besides 25 non-member cases. Among member patients there were 39 operations for enlarged tonsils and adenoids and many other minor complaints were dealt with, but there were also many major operations and a number of medical cases were admitted, some for consultation. Twenty-eight X ray examinations and ten cystoscopies were made. As might have been expected, there was a deficit on the first year's working, but the revised terms will wipe this out without much difficulty. The association is to be congratulated on the success of a new and very important experiment in what is essentially a scheme of medical and surgical insurance. This type of paying hospital seems to have solved the difficulties of one large section of the community.

A Course on Heredity.

The Edinburgh School of Social Study and Training has been fortunate in securing a course of six lectures from Dr. F. A. E. Crew, director of the Animal Breeding Research Department, Edinburgh University. Some of us are old enough to have watched the transformation that Darwinism effected in biology as taught in the universities, and were therefore young enough to take quite seriously Weismann's "non-inheritance of acquired characters" and to follow the Spencer-Weismann controversy on the "all-sufficiency of natural selection." Thus we find it peculiarly stimulating to watch the young giants of the Mendelian era in their efforts to displace generalisation by the results of experiment. One of the great misfortunes in scientific history was that Mendel and Darwin did not know each other, and it is impossible even to guess what Darwin would have said about Mendel and his work. Thanks, however, to Bateson and his many brilliant successors, this generation does not lack exponents, and we welcome every attempt to make the new results an open book not to medical students only, or to the strictly scientific students, but to health visitors, nurses, and others interested in social affairs. Dr. Crew's course ought to be largely attended. He will discuss the mechanism of organic inheritance and of sex-determination, the inheritance of physical and mental characters in man, inbreeding and outcrossing, and the application of genetic facts to social and racial problems. At a moment when the problem of the feeble-minded is exciting world-wide interest it is gratifying that at least one school of social study offers a platform to the worker in pure and applied biology.

The Veterinary Services.

To judge by newspaper reports of the annual meetings of the two Scottish veterinary colleges there seems to be a good deal of feeling between East and West. What the merits of the case are I do not know, but it is certain that in recent years veterinary education has enormously improved, and it can now be fairly said that the training of veterinary officers is grounded on a well-proportioned curriculum of scientific studies. Recent developments under the Ministry of Agriculture—which still has jurisdiction in Scotland so far as animal diseases are concerned—have made a considerable number of openings for young graduates, and the Milk and Dairies Act and Tuberculosis Compensation Order have led to the appointment of a relatively large number of whole-time officers. It will be interesting to see whether the effects of the Compensation Order will include a drop in the rates of human tuberculosis of all kinds. The next ten years should provide a real test of the theories about milk infection.

Scarlet Fever.

In his bulletin for May, 1926, Dr. A. S. MacGregor, medical officer of health for Glasgow, writes: "Both scarlet fever and diphtheria are somewhat more prevalent this year; in fact, scarlet fever appears to be increasing in incidence from year to year since 1915." Certainly the incidence for September and October up to date shows a distinct increase over the corresponding months of last year, but the climax usually comes about this time, and the next week or two will show whether this is to be accounted an exceptional epidemic. The weekly scarlet fever incidence for the large towns as a whole is not yet quite so high as it was in September, 1925.

PARIS.

(FROM OUR OWN CORRESPONDENTS.)

Professional Donors of Blood.

SOME leaders of the medical profession in Bordeaux propose to set up a service of blood transfusion for the local hospitals. A report presented to the Medico-Chirurgical Society sets out the ever-present need in hospitals of professional donors, who may be adult subjects chosen from the medical personnel (internes, externes, students), from the hospital attendants, or at need from a larger public. Since donors must be easily accessible a list of them is to be permanently posted in the bureau of the hospital with a daily rota of names. The suggestion is that donors should be examined every three months by the laboratory chief, only those of group 4, so-called universal donors, being retained. Experience having shown that loss of blood to the extent of 500 c.cm. is harmless, this amount is to be asked of each donor not oftener than once a month, the donor having the right to five days' complete rest after a bleeding. For the four hospitals of Bordeaux the number of remunerated donors required is estimated at 15, a number which would be enough to ensure 10 to 20 urgency transfusions a month. Non-urgent transfusions can be arranged with voluntary donors selected from the patient's immediate circle on the ground of compatibility.

Ætiology of Abortion.

Although abortion with intent may constitute a large group in certain circles, any tendency should be avoided to exaggerate its prevalence or to include in the intentional group all abortions of unknown origin. Dr. Henri Vignes, accoucheur to the Paris hospitals, in a recent study of the ætiology of abortion, finds that syphilis constitutes a not inconsiderable group, while numerous other factors come into play. Many abortions are due to disease of the ovum or of the other products of conception. There is a pathology of the embryo and a pathology of the fœtus, and as far as present knowledge goes the cause escapes us in a considerable number. Out of 530 abortions Brion only found a well-defined cause in less than a third of the cases—namely, faulty insertion of the placenta, 62; syphilis, 52; albuminuria, 27; hydramnios, 13; uterine malformation, 7. In 367 cases the cause could not be ascertained.

Diuretic Action of Quinidine.

Quinidine, employed to regulate cardiac arrhythmia or paroxysmal tachycardia, seems to have another effect so far unrecognised—namely, a diuretic. Dr. Labbé (Paris) in administering the drug in old persons—predisposed, it is admitted, to polyuria—has found that quinidine is apt to cause troublesome diuresis, which stops when treatment is discontinued. Quinine and quinidine in febrile patients accelerate the heart's action without vaso-constriction, with a resulting increase in blood pressure, and in subjects possessing normal function an increase in excretion of urine, but Dr. Labbé's old persons were not febrile. The fact that quinidine gives rise to diuresis, although unexplained, should be noted as it may have useful application.

Glycosuria and Diathermy.

Dr. Bordier (Lyon) has reported in the *Archives d'Electricité Médicale* the case of a young man of 20, two years diabetic (9·75 g. glucose in 2500 c.cm. urine per day) in whom the glycosuria, polydipsia, and asthenia all disappeared a week after the application of diathermy by d'Arsonval's method, a current of

3200 milliampères being given for periods of half an hour repeated six times. There is reason to suppose that high-frequency oscillations may give rise to some modification in the islands of Langerhans, where the internal secretion of insulin takes place, but the result could also be explained by direct action of the current on the liver.

Health Conditions at Madagascar.

Prof. Koun, assistant director of the medical school at Antananarivo, reports that the natives of Madagascar have high fecundity, which is counteracted by high morbidity and mortality, due especially to respiratory affections, malaria, and plague, which assume great virulence. The environment is characterised by marked and sudden climatic changes and modified bacterial virulence, as well as the pathogenic effects produced by infection. The native medical organisations are too individualistic and modern methods are deplorably neglected. Penalties for violations of sanitary regulations are not enforced. Spirochætoses frequently constitute troublesome complications, and most diseases develop in the presence of pre-existing malaria.

New Theory of Anaphylactic Shock.

At a recent meeting of the Académie des Sciences, A. Lumière and J. Enselme presented the results of studies in anaphylaxis made in guinea-pigs. The authors advance the theory that anaphylactic shock is produced by irritation of nerve-endings in the vascular wall, induced by contact with flocculated particles formed when the releasing substance meets the sensitised serum of the patient. For preventing the shock the authors reason that anæsthesia of the vascular nerve-endings in question should prove effective. They have supported this deduction by experiments with allocain hydrochloride. The anæsthetic effect, however, wholly disappears in two hours.

The prefect of police has decided that the Paris milk-supply must be distributed preferentially, and first of all to retailers in the local quarters of Paris; hotels, cafés, and similar establishments are to have only secondary consideration. This step has been adopted in order to assure a sufficiency of milk to French families and regular residents of Paris. The general and municipal councils of Paris are considering with much solicitude the ever-rising price of milk and the inadequacy of the supplies provided for Paris. The problem is becoming urgent, and seems to demand limitation of the exports of butter, cheese, and similar dairy products.

The free clinics in and about Paris, closed during the past few months of the summer, are again opening for the autumn. A few post-graduate courses have already started, and for students acquainted with clinical chiefs and assistants in the various Paris hospitals the opportunities for practical clinical study are very numerous and valuable. Apart from all formal connexions with the hospital advantages, graduates and undergraduates can always find an abundance of opportunity and material at Paris, provided they speak and understand a modicum of French.

On Oct. 9th a large group of Polish surgeons arrived at Paris to attend the Thirty-fifth French Surgical Congress, and were received at the Faculté de Médecine under the auspices of the well-known Bienvenue Française.

MATERNITY AND CHILD WELFARE CENTRE AT SHEFFIELD.—Sir Kingsley Wood, Parliamentary Secretary to the Ministry of Health, has laid the foundation-stone of a maternity and child welfare centre which is to be erected, at a cost of £20,000, upon a site at the rear of the Cutler's Hall. There will be a waiting-room to hold 300 persons, and a shop for the sale of such foods as the doctors order. The building is being made of concrete blocks. The attendances at the present clinic are nearly 1000 a week, and since maternity and child welfare work began in 1900 the infantile death-rate of Sheffield has been halved.

Correspondence.

"Audi alteram partem."

PEPTIC ULCER AND CANCER OF STOMACH.

To the Editor of THE LANCET.

SIR,—What is the relationship between the round ulcer of the stomach and cancer of the stomach? Too much, perhaps, has already been written about this question, but since a great many authors and very many surgeons stick to the idea that many carcinomata ventriculi develop in peptic ulcers I feel compelled to ask them to reconsider their opinion.

In approaching the question we must be sure about our known quantities. Ulcer of the stomach is a word which covers very different things. It may mean an anatomical condition—that is, just the defect in the wall of the stomach without any manifest disease. In this case the ulcer is only found post mortem. On the other hand, the term is applied to the disease of a man who vomits hyperacid masses, has epigastric tenderness, and has pain at a certain time after meals. If he dies from an intercurrent disease his gastric mucosa is, perhaps, found intact. Thirdly, a man, 35 years old, with a two years' history of gastric trouble, has signs of pyloric obstruction; the acidity is normal; X ray shows a Haudek niche, and the resection of stomach reveals a carcinoma. What happens if the term ulcer is used for three things so different? Even with carcinoma there are enough difficulties to make conclusions useless when no post-mortems are performed and when no reasonable microscopical study of the resected specimen is made. The more experienced people are, the more they realise the difficulty of deciding at operation or post-mortem whether they are handling a carcinoma, which became ulcerated, or a callous ulcer.

Since the diagnosis of the two conditions is so fallacious, it is hard to establish causal relations between them, covering years, and involving data given by the patient. The simplest way to solve the problem is, of course, just to *assert*, to *affirm*, that many ulcers become cancerous in the stomach; and this way has been more successful than any other in impressing the medical world. The evidence furnished instead of proof are the specimens of ulcerated cancers from patients with or without a long stomach history. It is more a matter of psychology than purely a medical question. We all want to know, we all feel unhappy not to know, the origin of cancer. Now people claim to have found the root of the most frequent cancerous disease, and certainly most of us like to believe them and we do so.

If it were true that many peptic ulcers become cancerous, the part of the stomach which is the preferred seat of ulcer should be the site of election for cancer also. For the stomach itself this question is not easily answered because we see too seldom the early carcinoma which alone permits exact localisation. But ulcers are very frequent in the first part of the duodenum, and are similar if not identical with gastric ulcer. Where are the cancers into which these ulcers degenerate? Carcinoma of the upper part of the duodenum is extremely rare and it would be difficult to explain this if ulcer really breeds cancer. Secondly, in spite of all statistical difficulties, it cannot be denied that the peptic ulcer is much more frequent in certain towns and countries than in others; but the statistical reports of cancer of the stomach give no parallel to this geographical distribution. They ought to do so if it is true that cancer develops from ulcer. Diagnosis and treatment of peptic ulcer have been improved by clinical work, by standardisation of diets, by X ray, and by surgery. A decrease in the frequency of gastric carcinoma might therefore have been expected, but there has been no such decrease. It would be reasonable, furthermore, to expect that

cases treated by gastro-enterostomy would later on show a higher incidence of cancer than those in which resection had been done. Yet *statistics do not show* this higher incidence.

When we find an old ulcer which microscopically also is a simple callous ulcer all around and no scirrhous cancer, and when in one edge of this ulcer a small area of adenocarcinoma is found, then we are in the presence of a cancer developing from an ulcer of the stomach. Cases like this are described beyond any doubt but their number is small, and the diagnosis is difficult. If we accept only these cases as derived from ulcer then the percentage of ulcers which become malignant is very low—much lower than the 5 per cent. which are admitted even by those who do not favour the idea that cancer develops from ulcer.

But since it is true that carcinoma may develop in an ulcer and later invade and replace the ulcer, an attempt must be made to make a diagnosis from the history. The rule is that a long history of stomach trouble in an older person points towards ulcer, while a shorter history is suspicious of malignancy. This rule is good but its importance seems to have been overrated. Many cases have been reported in which after years of gastric disease carcinoma has been found, and they are used to support the theory that ulcer creates cancer.

But what do we know about the speed of growth in the manifold types of carcinoma in the stomach? Perhaps the man was right who said "Cancer of the stomach is a tragedy of which we see only the fifth act." Not seldom is a carcinoma found at autopsy in the stomach of a patient who never had any symptom of it, and reports from good hospitals put the average of unrecognised cancers of the stomach as high as 20 per cent. Can a stomach cancer stop growing for a while and continue later on; or, at least, cannot it stop making symptoms and start again?

Anschütz and Konjetzny [1] say that a history of two years does not yet speak against carcinomatous origin, and Dr. Theodor Plaut [2] has published cases showing the long duration of symptoms due to cancer. The previous history cannot be relied on to show if there has been an ulcer or not; nor can we rely upon the acidity findings, since too many cancer cases have normal HCl for a long time, and many ulcer cases show no hyperacidity. The periodicity of pain and its relation to food ingestion have also lost a large part of their significance in ulcer diagnosis. Perhaps they are symptoms of a localised stomach lesion only, and the fact that there is a circumscribed lesion at a certain point is as active in bringing out the symptoms as the character of the lesion.

A tumour in the cerebello-pontine angle is a clinical entity, and whether it is an endothelioma or a glioma does not make much diagnostic difference. In a smaller degree the same is true in the stomach, since the different agents—the cancer, the ulcer, the unknown ætiological factors in nervous conditions—can produce very similar clinical pictures. All this means that probably many so-called ulcer cases which ended in cancer have been cancer from the beginning. We have learned that the symptoms which an ulcer causes largely depend upon the constitution of the patient, the question arises if it is not the same with the small carcinoma, whether ulcerated or not.

The real frequency of cancer of the stomach will only become known when we have a complete autopsy of every patient.

I am, Sir, yours faithfully,

ALFRED PLAUT, M.D.

New York, Sept. 19th, 1926.

[1] Anschütz and Konjetzny: Die Geschwülste des Magens, see Deutsche Chirurgie, 1921, Nos. 46 ff.
[2] Plaut, Th.: Archiv. f. Verdauungskrankheiten, 1922, No. 29.

SCOTLAND AND VENEREAL DISEASES.

To the Editor of THE LANCET.

SIR,—In your editorial postscript which follows Mr. Wansey Bayly's letter in THE LANCET of Oct. 9th, you state "It is open to a local authority to submit any proposals for personal prophylaxis, and, if any such proposals had been made, the Board's reply would, no doubt, have been available in a public form."

On April 26th, 1924, a joint committee of local authorities in Scotland intimated to the Board "their unanimous opinion that legislation is urgently required whereby . . . . the existing prohibition of the sale of disinfectants is removed so as to permit qualified chemists to sell *ad hoc* disinfectants in appropriate form and with suitable instructions for use." The Board's reply is not "available in public form" for the very good reason that the Board have not condescended to reply at all. To maintain a dignified silence is a comparatively easy, if cowardly, way of shirking a difficult subject. The Board have likewise failed to say Yes or No to the plea for compulsory notification and treatment of venereal diseases put forward to them in March, 1925, by a conference representing one-third of the population of Scotland.

These unpleasant facts do not in any way detract from the general value of the "Pamphlet on Venereal Diseases" recently published by the Board. They merely go to prove that the views of local authorities and the opinions of the medical member of the Board and of one of their medical officers (both definitely in favour of personal prophylaxis) are flouted by the lay majority on the Board from motives of political expediency.—I am, Sir, yours faithfully,

Glasgow, Oct. 20th, 1926. ROBERT FORGAN.

INJECTION TREATMENT OF VARICOSE VEINS.

To the Editor of THE LANCET.

SIR,—I thank you for the sympathetic reference in your annotation of Sept. 25th (p. 661) to my article on the injection treatment of varicose veins in the *Ugeskrift for Laeger*. My lecture has since appeared in English with additions in *Acta Chirurgica Scandinavica* (vol. lx., Fasc. iv.–v., p. 436). I feel sure that this treatment will be of great importance, especially as regards the sequels of the disease, chronic ulcers and eczemas. Up till now I have treated 600 cases, and for the last four months I have been using a new technique *without any complications at all*. I am proposing to deliver a lecture on these new cases in the Medical Society of Copenhagen on Nov. 2nd, which will be published shortly afterwards in the *Ugeskrift* and probably later in English in the *Acta*. I consider it of some importance, for the good results of the treatment, that my latest experiences and improvements of technique should be known by surgeons intending to use the method.

I am, Sir, yours faithfully,

Oct. 21st, 1926. V. MEISEN,
Surgeon-in-Chief to the Policlinic of Copenhagen.

ANÆSTHETICS IN UROLOGY.

To the Editor of THE LANCET.

SIR,—I admit that Dr. Speid Sinclair has cause to complain of some remarks of mine published in the Transactions of the Royal Society of Medicine. They were made in a jesting spirit at the tradition which dictates the routine use of chloroform, and were never intended for publication as they made no contribution towards the scientific work of the meeting. I confess that I am as surprised as Dr. Sinclair must have been to see them in print. The proof of my remarks was carefully revised by the Assistant Editor and myself and the small slip containing the words to which Dr. Sinclair rightly objects, and for which I make an apology, entirely escaped our notice.

I am, Sir, yours faithfully,

Oct. 23rd, 1926. FRANCIS E. SHIPWAY.

"OSTEOCLASTOMA."

To the Editor of THE LANCET.

SIR,—In regard to the annotation in THE LANCET of Oct. 16th, on malignant myeloid sarcoma, we should like to make it clear that the proposal to drop the various terms now in use for this tumour in favour of the name "osteoclastoma" is the suggestion of Prof. M. J. Stewart of Leeds, who has been using this term regularly in class and for routine reporting for some years, and suggested it to us in the first instance. The view that these growths are essentially polymorphous-celled sarcomas which differentiate on the one hand into fibroblasts, and on the other into giant cells, which are the analogues of the osteoclasts, was also originated and developed by him (THE LANCET, 1922. ii., 1106).

We are, Sir, yours faithfully,

ERNEST FINCH.
HUMPHREY H. GLEAVE.

Pathology Department, University of Sheffield,
Oct. 22nd, 1926.

INTERNATIONAL SANITARY CONFERENCES.

To the Editor of THE LANCET.

SIR,—A few errors have crept into the article entitled the Twelfth International Sanitary Conference, published in your issue of Oct. 9th, and perhaps you will permit me, in the interests of accuracy, to correct them. First, the Conference just held was not the twelfth but the thirteenth in the series, as shown by the following list of such Conferences: Paris, 1851 and 1859; Constantinople, 1866; Vienna, 1874; Washington, 1881; Rome, 1885; Venice, 1892; Dresden, 1893; Paris, 1894; Venice, 1897; Paris, 1903, 1911–12, and 1926. Secondly, the Sanitary Convention of this year is not the sixth to be signed, as stated, but the ninth. The others were: Paris, 1851 and 1859; Venice, 1892; Dresden, 1893, Paris, 1894; Venice, 1897; Paris, 1903 and 1912. Thirdly, the first Conference was held in Paris in 1851, and not in 1854 as stated in the article.

I am, Sir, yours faithfully,

Ealing, W., Oct. 23rd, 1926. F. G. CLEMOW.

The Services.

ROYAL NAVAL MEDICAL SERVICE.

Surg. Comdrs. W. C. B. Smith and M. T. Male are placed on the Retd. List with rank of Surg. Capts.

Surg. Lt.-Comdr. (D.) F. Thompson is placed on Retd. List at own request.

E. E. Malone, T. B. Lynagh, and C. F. Lynch to be Surg. Lts.

ROYAL ARMY MEDICAL CORPS.

Capts. to be Majs.: T. I. Dun and O. J. O'B. O'Hanlon.

Temp. Capt. J. Grant-Johnston relinquishes his commn. and is granted the rank of Capt.

TERRITORIAL ARMY.

Maj. W. A. Valentine and Maj. E. L. D. Dewdney, having attained the age limit, are retd. and retain their rank with permission to wear the prescribed uniform.

ROYAL AIR FORCE.

Flight Lt. H. McW. Daniel is promoted to the rank of Squadron Leader.

Flying Officer A. Harvey is promoted to the rank of Flight Lt.

INDIAN MEDICAL SERVICES.

Lt.-Col. H. P. Cook, on return from leave, has been posted as Civil Surgeon, Fyzabad. Dr. Badri Datt Punde has been posted as Civil Surgeon, Mainpuri. Dr. Ram Charan Lal has been posted to Bareilly. The following postings in the Provincial Medical Service have taken place: Dr. Prahlad Narain Mathur to Dehra Dun from Fyzabad. Dr. Brij Ratan Jain from Nagina, Bijnor, to Sultanpur. Dr. Kashi Prasad Bhatnagar from Chamoli, Garhwal, to Hardoi. Dr. Chiranji Lal from Lalitpur to Hamirpur. Dr. Narain Das Banerji from Dehra Dun to Bahraich. Dr. Jagdish Narain Gupta from Bahraich to Lucknow. Dr. Rasik Behari Lal from Hardoi to Mirzapur. Dr. Rameshwar Singh from Mirzapur to Muttra.

Dr. P. N. Chatterji, district medical officer of health, Moradabad, officiates as Assistant Malaria Officer, United Provinces. Col. C. J. O'Gorman, D.S.O., officiating D.D.M.S., Eastern Command, has left India pending retirement. The appointment of Maj. Seymore Sewell as Director of the Zoological Survey has been confirmed. Maj. N. D. Puri has been transferred permanently to the Punjab for employment in the Jail Department.

DEATHS IN THE SERVICES.

The death of Maj.-Gen. Sir Charles S. Ryan is announced in a telegram to the *Times*. He was a passenger in the *Otranto* from England, and died while the ship was berthing at Adelaide on Oct. 23rd. Sir Charles Snodgrass Ryan was born in Melbourne in 1853 and was first educated at Melbourne Grammar School. He qualified with the M.B., C.M. Edin. in 1875, and continued his medical studies in Paris and Vienna. In 1876–78 he served in the Turkish Army as surgeon throughout the Turko-Serbian war and the Russo-Turkish war, including the sieges of Plevna and Erzerum, and was the only Englishman to go through the siege of Plevna on the Turkish side (Order of the Medjidieh and Osmanieh). He had held the posts of senior surgeon to the Melbourne Hospital and lecturer on clinical surgery and examiner in surgery at the University of that city, while he was honorary physician to the Governor-General of Australia. During the Great War he was A.D.M.S., 1st Australian Division, at Anzac, France, and England, and was afterwards consulting surgeon to the Australian Imperial Force. In 1922 he revisited the scenes of his student days at Bonn and brought back an interesting account of German prosperity in the Rhineland, which was published in the *Times* of May 29th, 1922. He married, in 1883, Alice, daughter of the Hon. Theophilus Summer, of Victoria, who predeceased him in 1923.

Obituary.

CHARLES CLEMENT LAPAGE, M.D. CAMB., M.R.C.S. ENG.

Dr. C. C. Lapage, who died on Oct. 14th at Dolywern, near Chirk, at the age of 75, had retired from practice some years ago and had gone to live at Manchester with his son, Dr. Paget Lapage. He was educated at Leeds Grammar School and was a scholar of Magdalene College, Cambridge, where he read mathematics before taking up medical work. On going down from the University he returned to Leeds, and after qualifying in 1876 was appointed house surgeon at the Leeds General Infirmary. On going to live at Nantwich he built up a large practice and acted as consulting physician to the Brine Baths Hotel. He was also medical officer to the Voluntary Aid Detachment's Hospital, and became well known throughout South Cheshire as an examiner and lecturer in St. John's Ambulance work. In his university days Dr. Lapage was prominent in many forms of sport and he continued their pursuit as far as possible during his 42 years at Nantwich. He was well known in the hunting field. He was a widower, and leaves a daughter and five sons, two of whom are medical men.

WILLIAM GEORGE MARTIN.

THE death occurred on Tuesday, Oct. 19th, at the age of 75, of Mr. William George Martin, nearly 40 years associated with THE LANCET and for 25 years the head printer. He retired in 1915, and on the occasion a presentation was made to him by his colleagues at a farewell dinner, which was attended by the Editor and Assistant Editor, many old members of the staff, the head of THE LANCET Laboratory, and the chairman of the Company. To a large number of the older contributors of THE LANCET Mr. Martin was personally known, and it was not unusual for some of them to make their corrections and emendations under his eye, while for several years after his retirement, until failing health prevented him, he prepared the index of the paper. We have lost in him an old and valued friend.

Medical News.

UNIVERSITY OF OXFORD.—At a congregation held on Oct. 21st the degree of Bachelor of Medicine was conferred on W. H. Hudson and E. L. Fothergill.

Radcliffe Prize.—The next award for the Radcliffe Prize will be made in March, 1927. This prize of £50 is awarded by the Master and Fellows of University College every second year for research in any branch of medical science. It is open to all graduates of the University who have proceeded, or are proceeding, to a medical degree in the University. Candidates must not have exceeded 12 years from the date of passing the last examination for the degree of Bachelor of Arts, and must not, at the date of application, be Fellows on the Radcliffe Foundation. Candidates must send in their memoirs to the Secretary of Faculties, at the University Registry, on or before Dec. 1st, 1926. The award will be made in March, 1927.

UNIVERSITY OF CAMBRIDGE.—At examinations held recently the following candidates were successful:—

DIPLOMAS IN PUBLIC HEALTH AND HYGIENE.

James L. Dunlop (distinguished in Part II.), Bandi Ethirajulu, Neil E. Goldsworthy (distinguished in Part I.), Riad Abdel Noor Henein, Farid Hilmy, Bertha H. Lawler, Wasfy Omar, Harold B. Porteous, Trilok Chand Puri, John S. Smith, Margaret A. C. Symon, and Abdul Wahid el Wakil (distinguished in Part II.).

UNIVERSITY OF EDINBURGH.—At a graduation ceremonial held on Oct. 23rd the following degrees and diplomas were conferred:—

M.B., Ch.B.—Arthur Ian Barron, Oswald Dennis Beetham, Henry Caplan, Christopher William Clayson (in absentiâ), Basil George Tonge Elmes, William Andrew Erskine, Alexander Thomas Forbes, William Graham Hardie, James Donald Horsburgh, Walter Dalgleish Jackson, James M'Lauchlan Johnston, James Johnston Mason, David Olumide Peters, George Phillips, Edwin Moody Robertson, Percy Mitchell Scott, Philip Seager, Edward Morton Sewell, and Hugh Somerville.

D.P.H.—Frank Allardice, James Currie Baxter Craig, Andrew Isaac Messer, John Barré de Winton Molony (in absentiâ), Archibald Colin Murray (in absentiâ), Agnes Frances Turner.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—At a meeting of the College held on Oct. 20th Dr. Arthur Logan Turner was re-elected President for the ensuing year, Sir David Wallace, Vice-President, and Mr. Alexander Miles Secretary and Treasurer.—The following 36 successful candidates, out of 83 entered, who passed the requisite examinations between July 12th and 19th were admitted Fellows:—

Arthur W. Allum, Robert Armstrong, William E. Barnie-Adshead, Kashinath Dattatraya Bhave, George S. A. Bishop, Alexander Callam, Richard E. D. Cargill, Joseph R. Cornish, Douglas R. Cramb, Alexander Gillies, Keith H. Gillison, William T. Graham, Richard J. B. Hall, Harold A. H. Harris, Coimbatore Venkataramana Krishnaswami, George E. Larks, Eugene G. Lynch, Charles S. Macdougall, William B. McKelvie, Joseph A. Maxwell, Brooke Moore, Horace W. Nash, Reuben W. Payne, John H. Pilkey, John L. R. Plimmer, Walter J. Robertson, Pieter Roux, James Scott, Thomas Sprunt, John P. Stewart, Soo Hock Tan, Patrick A. Treahy, Ivan A. Tumarkin, John R. Wells, Thomas A. Weston, and Lincoln M. Zinck.

UNIVERSITY OF GLASGOW.—The following medical degrees were conferred on Oct. 18th:—

M.D.—Ian Murray (with high commendation), Andrew Davidson, Peter R. M'Naught, and Patrick J. O'Hare.

M.B., Ch.B.—With honours: Herbert H. Pinkerton, George Armour, and Robert B. Smith. With commendation: John Black, Alexander B. Smith, David F. Anderson, Donald Chisholm, Charles E. B. Lynch, and William G. MacKay. Ordinary Degree: William Allan, James C. Baird, Percy M. I. Baird, Richard R. Barr, Harold Barton, James Binnie, Alexander M. Brown, David W. Buchanan, William A. Burnett, John Burns, Robert A. Campbell, David D. Clarke, Martha Cleland, William Clement, Edward A. M'Millan Connal, Archibald Cumming, David M. Cunningham, Jackson C. Cuthbert, Joseph Dunn, Alfred Esterman, Alexander C. Ewing, Jessie A. Flett, Dorothy M. Forsyth, George Gemmill, Charles Gilmour, Margaret A. Glass, Max Gorfinkel, Mary G. Gorrie, Charlotte A. Gunson, John Hzmilton, John A. Kemp, Hugh R. Kidd, James E. W. Lee, David P. Leiper, Simon R. Lipchinsky, Robert Logan, Samuel Lurie, Donald MacCullum, Robert H. B. M'Crae, Mary L. M'Gregor, Murdoch MacGregor, Colin C. M'Kenzie, William G. MacLean, Thomas H. M'Owat, Mungo Manderson, Joseph Margolves, Alexander G. Mearns, Isabella A. Milne, Louis Morrison, George M. Muirhead, James G. Murdoch, Moses Naftalin, John O'Hara, Ian M. Orr, William T. Rankin, Duncan M. Reid, Gilbert Rorison, John P. Semple, Gavin Shearer, Andrew Shepherd, Josephine W. Shepherd, George S. Sinclair, James L. Smith, Walter C. Smith, Eliza M. K. Stevenson, Murdoch G. Tallach, George R. Taylor, Andrew Thomson, Margaret T. Tindal, Henry Vost, Laurence A. Watson, William Wilson, John Wyllie, and Hamilton B. Young.

Herbert H. Pinkerton gains the Brunton Memorial Prize awarded to the most distinguished graduate in medicine of the year 1926; and Stuart I. A. Laidlaw gains the West of Scotland R.A.M.C. Memorial Prize awarded to the candidate with the highest aggregate marks in the final examinations for the degrees of M.B. and Ch.B. held during 1926.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The following candidates have passed the Triple Qualification Examination:—

FINAL EXAMINATION.

William G. H. Allen, Oswald D. Beetham, Paul R. C. Peterson, Norman M. Eadie, Arthur G. Farquharson, Armitage E. F. L. Forbes, Wilfred L. G. Jewitt, Samuel A. B. Hosang, John A. Mains, Thomas A. P. Wynter, David Zimmerman, James G. Currie, Kudyar Marimuthu Rama Swami, Gerald M. Fox, Robert D. Kerr, James V. O'K. Murphy, Bodiyabaduge William Perera, Canagasaby Gurusamy, Henry B. Martin, Don B. J. de Silva, Horace S. Kent, Raynhild B. Werden, Myer B. Stungo, Bartlet S. Ellis, James Hendry, Alexander S. Pool, Jose Joaquim Sant' Ana Furtado e Souza, Charles H. A. S. B. Panlickpulle, Soundranayagam W. Charles, and Arleigh W. Scott.

Medicine.—Daniel J. McKenna, Ronald A. Paton, Donald Ross, Edward P. Kelly, Sarukkali Patabendige Bandulasena Gunawardena, Bennet A. van der Gert, Samson Amarasiri Gunawardana, Eric A. Y. MacKeown, and Patrick J. Bourke.

Surgery.—Adam S. Gordon, John G. Buchanan, Aly Kouchouk, Siva Ratnam Carthegasam, and Alexander R. Cowan.

Midwifery.—John D. Cooper, Don Francis Jayamaha, Kanakkumar Dhar, Ronald A. Paton, Samuel Caller, Donald Ross, Abram B. Gilston, Lucy W. MacDougall, Elizabeth Bell, Bennet A. van der Gert, Samson Amarasiri Gunawardana, Aly Kouchouk, Hector T. J. Abeyesundere, Lamahewage Martin de Silva, Patrick J. Bourke, Siva Ratnam Carthegasam, John E. Mulholland, Kanailal Palit, and Alexander R. Cowan.

Medical Jurisprudence.—Henry C. Duncan, Don Francis Jayamaha, Alexander Lipschitz, Jamieson T. F. Pearse, Walter Campbell, Matthew Clayton-Mitchell, William Ainslie, Clarence E. Vaz, Samuel Caller, Robert R. MacGibbon, Mary E. J. Magee, and Lionel M. Green.

Public Health.—Jessie G. Service, George J. Bastible, Coenraad L. Pieters, Robert Cruickshank, Flora MacDonald, Ralph S. Begbie, Alexander Lundie, Reuben Levinson, Alexandra M. MacCormick, and Ruth M. Allison.

Part I.—George M. Millar, Lillias E. B. Buchanan, John W. Starkey, Charles K. Robertson, Jean R. Mason, Philomena R. Whitaker, and John Douglas.

UNIVERSITY OF LONDON.—At a meeting of the Senate held on Oct. 20th Mr. Percy Stocks, M.D., D.P.H. Camb., M.B. Manch., was appointed as from August 1st last to the University Readership in Medical Statistics tenable at University College. Dr. Stocks took first place in the natural science tripos at Cambridge in 1909, and in 1911 obtained a medical scholarship at the University of Manchester. He served during the late war as regimental officer in the Royal Army Medical Corps (1915–16) and bacteriologist in research laboratories (1917–18). From 1918 to 1920 he was acting school medical officer for the Bristol Education Committee and was later appointed senior assistant school medical officer. Since 1921 he has been medical officer to Galton Laboratory, and since 1924 lecturer in vital statistics and epidemiology at University College.—The Senate passed a resolution recording its high appreciation of the work of Sir Cooper Perry as principal officer of the University and giving its cordial thanks to him for his conspicuous services.

University College Hospital.—Three lectures on the History of Medicine will be delivered at University College Hospital Medical School by Dr. Charles Singer on Fridays, Nov. 5th, 12th, and 26th, at 4.15 P.M. The subjects will be: (1) The History of Scarlet Fever, (2) The Sweating Sickness, and (3) Some Points in the History of Hygiene.

HARVEIAN SOCIETY OF LONDON.—An ordinary meeting of this society will be held at 11, Chandos-street, W. 1, on Thursday, Nov. 4th, at 8.30 P.M., when a discussion on the Management of Labour with Contracted Pelvis will be opened by Mr. Aleck Bourne, followed by Mr. Eardley Holland, Mr. Clifford White, and others.

BEIT FELLOWSHIP IN TROPICAL MEDICINE.—The trustees of the Beit Memorial Fellowships are considering the appointment, at a salary of £1000 a year, of a Fellow who shall undertake research in the tropics for a period of five years. Application must be made before Feb. 1st to Sir J. K. Fowler, at 35, Clarges-street, W. 1.

MEDICO-LEGAL SOCIETY.—The attention of members of this society is drawn to the alteration in the day of the month fixed for meetings. In future the meetings will be held on the fourth Thursday instead of the third Tuesday in every month, unless special circumstances render it necessary to make any alteration, when due notice will be given.

LLOYD ROBERTS LECTURE.—The Lloyd Roberts Lecture for 1926 will be delivered by Dr. W. E. Gye at the Manchester Royal Infirmary on Tuesday, Nov. 9th, at 4.15 P.M. The subject of the lecture will be An Outline of the Knowledge Gained by the Experimental Study of Cancer.

THE LATE DR. J. G. DUNLEA.—News has reached Cork of the death of Dr. John Gerald Dunlea in Malaya on Sept. 13th. Dr. Dunlea graduated in medicine at the National University of Ireland in 1921, and joined the Malayan medical service about two and a half years' ago. He had recently been in charge of the Batu Gajah Hospital.

ROYAL NORTHERN HOSPITAL.—Prince Henry has consented to be present at a festival dinner of the Royal Northern Group of Hospitals on Thursday, Nov. 18th, at 7 for 7.30 P.M., at the Savoy Hotel. The dinner will commemorate the seventieth anniversary of the hospital, and it is hoped to raise money towards removing the burden of debt under which it is working.

LEAGUE OF NATIONAL LIFE.—This afternoon (Friday) at 3 P.M., is being held the first annual general meeting of the League at the Caxton Hall, at which the president-elect, Dr. F. J. McCann, senior surgeon to the Samaritan Hospital for Women, is delivering an address on the Dangers of Contraception. Speeches are also to be made by Dr. Halliday Sutherland and Dr. Letitia Fairfield. Lord Fitzalan of Derwent is to occupy the chair.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.—At the annual meeting of the President and Fellows of the Royal College of Physicians, held on St. Luke's Day, Dr. T. Henry Wilson was re-elected as President, and Dr. T. P. C. Kirkpatrick as Registrar. The following were elected as Censors: In medicine, Dr. F. X. Callaghan and Dr. V. M. Synge; in midwifery, Dr. B. Solomons; and in medical jurisprudence, Dr. J. W. Bigger. Dr. Solomons was nominated Vice-President.

INSTITUTE OF HYGIENE.—A series of lectures on Womens' Health is being delivered in the lecture hall of the Institute, 28, Portland-place, London, W., at 3.30 P.M., on Wednesdays until Dec. 1st. The lecturers are Dr. C. S. Thomson, Dame Mary Scharlieb, Dr. Harry Campbell, Dr. Leonard Hill, Lady Barrett, and Dr. James Fenton. The next lecture, on Nervous Disorders and Mental Hygiene, will be given by Dame Mary Scharlieb on Nov. 3rd. A number of seats are reserved for Fellows, Members, and Associates of the Institute, but ample room is provided for others, of both sexes, who are interested in health problems.

MEDICAL CONGRESS AT PRETORIA.—The twenty-first annual congress of the South African Medical Association brought together a large gathering of medical men in the Macfadyen Hall, Pretoria, on Oct. 4th. The South African Centre of the British Medical Association has now been incorporated in the South African Medical Association, and, as President of the former body, Dr. A. J. Orenstein welcomed the first congress under the joint régime, and introduced the new President, Dr. A. W. Sanders, who delivered an address entitled Generations to Come in which he discussed racial degeneration and its causes. In connexion with the congress there was a trade exhibition of medical and surgical accessories and products.

PEOPLE'S LEAGUE OF HEALTH.—The League has arranged a series of eight lectures on the Mind and What We Ought to Know About It, to be delivered in the lecture room of the Medical Society of London, 11, Chandos-street, Cavendish-square, W., beginning on Monday, Nov. 1st, at 6 P.M. The following is a list of the subjects: Mind and Body (Dr. E. Mapother); Primitive Instinct (Dr. E. D. Macnamara); Association of Ideas, Recognition, and Memory (Dr. Neill Hobhouse); Mental Mechanisms (Dr. H. Crichton Miller); Habit and Adaptation (Sir Maurice Craig); Fatigue and Sleep (Sir Robert Armstrong-Jones); Crime and Delinquency (Dr. W. A. Potts); Mental Deficiency (Dr. A. F. Tredgold). The fee for the course will be 10s. Further particulars may be had from Miss Olga Nethersole, The People's League of Health, 12, Stratford-place, W. 1.

The League has also arranged a series of eight lectures on Diet: What We Should Eat and Why, to be delivered in the lecture room of the Medical Society of London, 11, Chandos-street, Cavendish-square, W., commencing on Wednesday, Nov. 3rd, at 6 P.M., when Dr. Harry Campbell will speak on the Food of Mankind, Treated Historically and Geographically. The other lecturers will be Dr. Leonard Hill (Nature and Purpose of Food), Prof. Winifred Cullis (Food in Relation to Growth), Prof. W. E. Dixon (Common Poisons in Daily Life), Dr. J. Lewis Rosedale (Common Errors in Diet), Prof. Hugh Maclean (Vitamins), and Dr. R. L. J. Llewellyn (Rheumatism in Childhood). The fee for the series will be 8s. The syllabus and further information may be had from Miss Olga Nethersole.

ROYAL LIVERPOOL BABIES' HOSPITAL.—The King has commanded that the Babies' Hospital at Woolton is to be known in future as the Royal Liverpool Babies' Hospital.

MANCHESTER MEDICAL SCHOOL.—The annual dinner of past and present students of this school will be held at the Grand Hotel, Manchester, on Thursday, Nov. 4th. Tickets (15s. 6d.) may be obtained from the secretary, S.R.C., the Medical School, Manchester.

RONTGEN SOCIETY.—A general meeting of this society will be held in the British Institute of Radiology, 32, Welbeck-street, London, W., on Tuesday, Nov. 2nd, at 8.15 P.M., when the President, Dr. N. S. Finzi, will give an address on Research in Radiology. A discussion will follow.

BRITISH SCIENCE GUILD.—The Norman Lockyer Lecture for 1926 will be given in the Goldsmiths' Hall on Tuesday, Nov. 23rd next, at 4 P.M., by Prof. J. S. Huxley, who will speak on Biology and Human Life. Tickets on application to the secretary of the Guild, 6, John-street, Adelphi, London, W.C. 2.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.—A meeting of this association will be held at 11, Chandos-street, Cavendish-square, London, W., on Friday, Nov. 12th, at 5 P.M., when Dr. A. I. Simey will introduce a discussion on the Modification of the Rules Usually Observed in the Management of Infectious Diseases in Boarding Schools. Tea will be served at 4.30 P.M.

ROYAL MEDICO-PSYCHOLOGICAL ASSOCIATION.—There will be a special meeting of this association at the B.M.A. House on Monday, Nov. 15th, at 4 P.M., to hear a lecture by Dr. Alfred Adler, of Vienna, on the Cause and Prevention of Neurosis. All neurologists, psychiatrists, and other medical men interested in the subject, and also senior medical students, are cordially invited to be present.

THE LATE DR. C. T. GIBBONS.—The death is announced of Dr. Charles Telford Gibbons, of Kentish Town, London. He died at his surgery on Oct. 15th whilst attending to a patient. Dr. Gibbons, who was a student of the London Hospital and took the conjoint diploma in 1897, was 58 years of age, and had worked in Kentish Town for 30 years.

A Medical Prayer Union meeting will be held, by invitation of Dame Mary Scharlieb, at 71, Harley-street, London, W., on Friday, Nov. 5th, at 5.30 P.M., when an address will be given by the Rev. Hubert L. Simpson, on the Doctor and Religion. An intimation of intention to be present will be welcomed by the hon. secretary, Dr. Tom Jays, Livingstone College, Leyton, E. 10.

FELLOWSHIP OF MEDICINE AND POST-GRADUATE MEDICAL ASSOCIATION.—On Thursday, Nov. 4th, at 5 P.M., at the Medical Society, Mr. C. Max Page will continue the series of lectures on "Surgical and Medical Emergencies" by speaking on "Observations on the Treatment of Fractures." These lectures are free to all members of the medical profession. On the same day at 1 P.M., Mr. M. L. Hepburn will give a demonstration in clinical ophthalmology at the Royal London Ophthalmic Hospital. At the Royal National Orthopædic Hospital on Nov. 1st Mr. E. Laming Evans will give a special afternoon demonstration starting at 3 P.M. Both these clinical demonstrations are free to all members of the medical profession. On Monday, Nov. 1st, a Practitioners' Course in general medicine and surgery will start at the Hampstead General Hospital. The daily sessions will take place from 4.30 to 6 P.M., and the course will last for two weeks. A clinical demonstration will be given for the first three-quarters of an hour, followed by a lecture. On the same day a course in venereal diseases will begin at the London Lock Hospital. There will be clinical work each day at the hospital from 1 P.M. onwards, and four or five lectures will be given weekly during the four weeks of the course. The following courses will also be held during November: at the Royal Waterloo Hospital for Children and Women a course in medicine, surgery, and gynæcology will start on Nov. 15th, lasting for three weeks and occupying every afternoon and some mornings; at the St. John's Hospital for Diseases of the Skin from Nov. 15th to Dec. 11th, including daily instruction in the out-patient department, and lectures on Tuesdays and Thursdays; at the West End Hospital for Nervous Diseases from Nov. 22nd to Dec. 18th, consisting of lecture-demonstrations daily at 5 P.M.; at St. Mark's Hospital from Nov. 22nd to 27th, including operations, demonstrations and lectures; and at the London Temperance Hospital from Nov. 29th to Dec. 11th, when the course will be in medicine and surgery, taking place in the late afternoons. Copies of all syllabuses, of the general course programme, and of the *Post-Graduate Medical Journal* may be had from the secretary of the Fellowship, at 1, Wimpole-street, London, W. 1.

BRITISH SOCIAL HYGIENE COUNCIL.—The Council has arranged a special course of lectures to teachers and those concerned with education, which is to be held at the lecture theatre of the College of Nursing, Henrietta-street, Cavendish-square, London, W. Mr. D. Ward Cutler, chief protozoologist at the Rothamsted Experimental Station, will open the course on Nov. 4th, at 5.30 P.M., with a lecture on the Contribution of Biology to Social Hygiene. On Nov. 11th Dr. W. M. Feldman will discuss the Contribution of Physiology to Social Hygiene; on Nov. 18th Dr. J. A. Hadfield will speak on the Contribution of Psychology to Social Hygiene; on Nov. 25th Dr. Mary Buchan Douie will give an address on the Adolescent and Social Hygiene, from the Standpoint of the Home; and on Dec. 2nd the course will end with a lecture by Prof. Winifred Cullis on the Adolescent and Social Hygiene from the Standpoint of the School. Free tickets may be had from the London Secretary, British Social Hygiene Council, Carteret House, Carteret-street, S.W. 1.

HOSPITAL AMALGAMATION IN BIRMINGHAM.—The Birmingham Hospital Council has approved a scheme to provide a new hospital centre, to which we refer on page 916. The centre will be under the control of the amalgamated boards of the General and the Queen's Hospitals, on a site adjoining the University, at Edgbaston, and will have a minimum of 750 beds. At present the General Hospital has 372 and the Queen's 224 beds, and the demand for further accommodation is already urgent. The population of Birmingham itself is practically 1,000,000, and within a radius of 30 miles there are 2,000,000 more people from whom there are heavy demands. The present deficiency of beds, taking the city alone, is between 600 and 800 for general medical and surgical cases, and it is calculated that by 1931 2400 beds will be required; the present total is 1800. The provision for out-patients is equally inadequate. The joint committee point out that the presence of the Medical Faculty of the University at the hospital centre would be highly advantageous, and that if the new hospital were not a teaching centre organically connected with the medical staff of the University it would not attain rank as a first-rate hospital It is hoped that the other Birmingham hospitals will eventually coöperate with the scheme.

ROYAL VICTORIA HOSPITAL, BELFAST. — On Wednesday in last week the Duke of Abercorn, Governor of Northern Ireland, opened the new extensions, which have cost £130,000. Every department has been improved or enlarged and the number of beds has been increased by 80 to a total of 436—152 medical, 202 surgical, and 49 for diseases of women; the remainder are reserved for special cases. There are now eight operating theatres, all the beds are provided with a special wheel to facilitate movement, and a large proportion are especially suitable for abdominal cases. The out-patient department comprises a new surgical clinical theatre and a new medical clinical theatre, each with dressing rooms, and new provision for the X ray department. An entire floor is given up to a very complete dental department with 18 chairs for conservation work, separate rooms for extractions, and recovery rooms in connexion with general anæsthesia. Much space is devoted to the manufacture of dentures, and there is a complete X ray installation for dental work only. This department forms the clinical portion of the recently established Dental School of Queen's University, Belfast. Another floor has been adapted as a clinic for eye, ear and throat diseases. At the opening ceremony Dr. J. A. Lindsay, professor of the theory and practice of medicine in Queen's University, who is chairman of the hospital, declared his conviction that the voluntary system is the most economical and efficient, and the best for the patient, the doctor, and the public.

THE STATUS OF VOLUNTARY HOSPITALS.—Speaking at the Coventry and Warwickshire Hospital last week the Minister of Health said that he had never believed that voluntary hospitals were bound, sooner or later, to be superseded by State- or rate-aided institutions. The public health could not, however, be treated in water-tight compartments, and it seemed to him that the time had nearly come to consider how the voluntary hospitals might be fitted into some scheme covering a wider field than had hitherto been formulated. These hospitals already received grants for certain purposes; was it not possible that coöperation of that kind might be extended? Could we not visualise a time when those responsible for the conduct of voluntary hospitals might be represented upon some central health authority upon which would rest the responsibility of the general hospital policy for the area? Might we not imagine that in return for a certain subordination of their complete and absolute freedom to do what they liked the voluntary hospitals might receive some further assistance than that which they got at present, and could we not imagine that under a system of that kind this central authority upon which the voluntary hospitals would be represented might, while laying down in the broadest possible outline the principles upon which questions like (let him say) extension or treatment should proceed, nevertheless should leave to each individual unit the widest possible freedom in the administration and conduct of its work? At the same time he assured his hearers that he had no legislation in his mind that need cause a moment's uneasiness to the voluntary hospitals.

TUBERCULOSIS CONFERENCE.—What is called a Tuberculosis Week-end has been arranged jointly by the Tuberculosis Society and the Society of Superintendents of Tuberculosis Institutions, and is to be held at the house of the Royal Society of Medicine, 1, Wimpole-street, London, W. from Nov. 19th to 22nd. On Nov. 19th, at 5 P.M., Dr. O. Strandberg, of the Finsen Institute, Copenhagen, will read a paper on the Treatment of Tuberculosis and particularly Tuberculosis of the Larynx by Heliotherapy and Artificial Sunlight. A discussion will follow. On the next day tours have been arranged to the King Edward VII. Sanatorium, Midhurst, and the King George V. Sanatorium, Milford, or to the Heatherwood Hospital for Surgical Tuberculosis, Ascot, and the Brompton Hospital Sanatorium, Frimley. Dr. L. S. Burrell will demonstrate cases at the Brompton Hospital on Monday morning and a lunch to the foreign guests will follow. At 3 P.M. Dr. P. F. Armand-Delille, of Paris, will speak on the Diagnosis of Bronchiectasis and Lung Cavities by Intratracheal Injections of Lipiodol, and there will be a discussion. The proceedings will close with a meeting at 5 P.M., when Dr. Georg Schröder, medical director of the New Schömberg Sanatorium, Wurtemburg, will read a paper on Specific Stimulant Therapy and Protective Inoculation Measures. Visitors interested in these discussions and tours are invited to attend. Application may be made to Dr. F. J. C. Blackmore, Tuberculosis Dispensary, Maxey-road, Plumstead, S.E. 18.

RHEUMATISM IN INDUSTRY.—A meeting of the Citizens' Council of the Federation of Medical and Allied Services was held in London on Oct. 26th, when a number of business men and doctors met to discuss the treatment of rheumatism in industry. Mr. Spedan Lewis took the chair, and an address was given by Sir Thomas Horder who described in simple terms the principal features of rheumatic disease. The nutritional factor in the ætiology, he believed, was generally underestimated, whilst too much stress was laid upon exposure. Cold was not so much important as damp cold. As preventive measures he suggested the maintenance of fairly dry atmosphere, ventilation, exercise, and elimination of strain. Dr. Howard Mummery, medical officer to Messrs. Lyons, said that damp must be avoided in workrooms; it was often caused by washing floors. So also must chilling of the feet and lack of sunlight and ventilation, whilst employees should have suitable storing and drying rooms for their damp out-door clothes. Dental sepsis was of enormous importance and a clean mouth should be a condition of permanent employment. The treatment of rheumatic joints was still most unsatisfactory even in London. Lumbago and neuritis, he thought, were very amenable to treatment at factories by massage and electricity. These were not available in panel practice and could be had at hospitals only with great loss of time to the worker. After installing such treatment at factories he had found that cases no longer remained away from work for one or two weeks—when they often claimed compensation for alleged strain—but the patients were cured by two or three brief applications whilst continuing their trade. The treatment of rheumatic joints, however, could not be dealt with by single firms; coöperative effort was needed. He hoped that an attempt would be made by several firms to found clinics for dealing with this type of chronic rheumatism. The cost would not be prohibitive and he suggested that a committee composed of business men and doctors should look into the question. Sir Thomas Neill said that the principle involved might land the manufacturer into providing treatment for all sorts of diseases. What was needed was information such as Sir Thomas Horder had given; it should be carried into places where people lived and worked. Mr. West advocated a contribution of a penny in the pound by workmen—an equal sum being given by their employers. This would go towards the cost of hospital or spa treatment. In his own industry, if 20 per cent. of coal-miners asked for drying rooms and baths, owners would be obliged to put them in, but the miners did not want such facilities. Dr. Saxby Willis, speaking as medical officer to a large firm, said that the most valuable agent in preventing rheumatism was routine examination of everyone applying for employment, and especially examination of teeth and tonsils. Service should only be temporary till septic foci had been removed, for it was easier to apply the necessary coercion before the workers were accepted than afterwards. Treatment was of secondary importance. Emphasis was laid by Mr. Morris Salmon on the financial profit resulting from the establishment of medical clinics at factories. It was decided that a committee, as suggested by Dr. Mummery, should be formed to go into the question of clinics for arthritis.

DIPHTHERIA AT MARKET DRAYTON.—The isolation hospital being full with patients suffering from diphtheria in this village, the Lyon Memorial Hall at Hodnet, Shropshire, is being adopted to receive infectious cases from the district.

MANCHESTER'S CIVIC WEEK.—The metallic badges or medals sold in the streets during Civic Week were bought by nearly a quarter of a million people. The sum thereby realised was £2500, which will be given in aid of the medical hospitals in Manchester and Salford.

LADIES' MEDICAL GOLFING SOCIETY.—The autumn meeting was held at Walton Health Golf Club on Oct. 26th, the members of the society being the guests of Lord Riddell. There were over 60 entrants for the various competitions, the results being as follows: Captain's Prize for net aggregate, spring and autumn meetings: Mrs. Lewis Smith. Best scratch score: Miss Edith Leitch (88). Senior Division: 1st: Mrs. Lewis Smith; 2nd, Lady Rigby. Second Division: 1st, Mrs. Jennings; 2nd, Mrs. de Paula. Third Division: 1st, Mrs. Gordon Holmes; 2nd, Mrs. B. Marshall. Eclectic of partners: Dr. Joan Ross and Mrs. Johnson. Greensomes: 1st, Mrs. R. Paton and Mrs. Nicholson; 2nd, Mrs. C. Fuller and Mrs. de Paula.

NEEDS OF THE UNIVERSITY OF LIVERPOOL.—Lord Derby, as Chancellor of the University, made a statement on Oct. 19th to representatives of nearly twenty municipalities and urban districts in Lancashire and Cheshire on the claims of the University for increased support from the local authorities of the area, with a view to developing some agreed scheme of financial assistance from each town sending students to the University, possibly by a small charge on the rates. In the six years immediately following the war the annual expenditure of the University greatly exceeded the income, and there was a deficit of £63,000. An additional income of at least £10,000 a year, said Lord Derby, was needed if the University was to be kept up to date. As compared with the last pre-war year, the number of students had nearly doubled and the cost per student had risen by 50 per cent. At the close of the proceedings the Lord Mayor gave £1000 to the University funds.

LONDON HOSPITAL DINNER.—More than 200 old students, including Sir Neville Howse, V.C., Minister of Health for the Commonwealth of Australia, attended the annual dinner held at the Trocadero Restaurant on Oct. 21st. There was no musical entertainment—except a little accidental singing from the residents' table—and there were only two speeches; these, however, were so good as to please both serious and light-minded elements in the audience. Recent events at the hospital were dealt with by the chairman, Dr. Russell Andrews, who referred to the death of Queen Alexandra—succeeded as President of the hospital by Queen Mary—and spoke of changes in the medical and nursing staff. Mr. Sherren, he said, had found that he must go down to the seas again, though this time in a steamship, and the hospital had also lost the valued services of two anæsthetists, Dr. Probyn Williams and Dr. Clapham. The retirement of sister Victor, recently Sister Marie Celeste, was a further misfortune that would be felt by generations of housemen and nurses whom she had taught, and by the countless patients who thought so much of her. Amongst new appointments were those of Mr. Victor Lack and Mr. Alan Perry, and the hospital was fortunate in having their services. After reading a long list of present students whose fathers and uncles had been there before them, Dr. Andrews turned from the present to the past and produced, as from the widow's cruse, a fresh set of stories—mostly told against himself and as amusing as they were characteristic. On one occasion he said, the progress of a long hysterectomy had been watched most earnestly by a certain clerk. Towards the end of it Dr. Andrews noticed that the bladder was beginning to fill up, and, being pleased to see by this that the patient was bearing the shock of operation well, he turned to this clerk and said: "Well, Mr. So-and-so, I think (don't you) that the bladder is increasing in size? Are you *pleased* to see that happening?" "Oh, yes, Sir, I am very pleased." "Why are you so pleased, Mr. So-and-so?" "Well, Sir, it shows, at any rate, that you haven't tied both ureters." This and other stories recalled the local colour, so to speak, of Dr. Andrews' celebrated matinées, and everyone was glad to have a further series of reminiscences from Dr. Paul Saint, who proposed the chairman's health in an amusing and sincere speech. Whilst greatly regretting his recent retirement, Dr. Saint hoped that Dr. Andrews would long keep up his connexion with the hospital. He was a classical example of a man who got on with the job, and his old students would always have the happiest memories of his classes and his help. The toast was then received with enthusiasm and drunk with musical honours. After Dr. Andrews had briefly replied, he proposed the health of the dinner secretaries, Mr. E. C. Lindsay and Mr. G. E. Neligan, which was dealt with in the same way. The party then gradually broke up in good order.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

EMERGENCY REGULATIONS.

PARLIAMENT reassembled on Monday, Oct. 25th, for the purpose of renewing the regulations under the Emergency Powers Act in connexion with the stoppage in the mining industry.

HOUSE OF COMMONS.

MONDAY, OCT. 25TH.

A Question of Privilege: Dr. Salter's Charge against Members.

Sir A. HOLBROOK called attention to a statement made by the hon. Member for West Bermondsey (Dr. Salter) at a meeting of the Good Templars on Oct. 12th. The hon. Member then stated "I have seen many Members drunk in the House of Commons and I am sorry to say no party is exempt." When interviewed later he had said the allegation which he had made was quite true and that it was considerably on the Conservative side because there were more of them." He (Sir A. Holbrook) considered this a most outrageous attack on the dignity of the House. It was quite unjustified, and he considered that it brought the hon. Member who made it within the rules of the House as regarded a breach of privilege. Surely a statement of this character was calculated to do irreparable damage to that honourable House, and those who were there to maintain the dignity of their position. He knew that some Members on the opposite benches who came from the north of the Tweed had made it their boast that they intended to destroy the character of the House of Commons.

The Speaker said that if the hon. member intended to raise a question of privilege he must not introduce extraneous matters.

Mr. CLYNES asked whether it was permissible for an hon. Member to proceed with a statement of this kind in the absence of the hon. Member affected, and whether notice of the matter had been given.

Sir A. HOLBROOK said he sent a telegram to the hon. Member telling him he was bringing up the matter that day. Continuing, he said that Dr. Salter, when asked whether he meant the allegation, said "Bless my soul, of course I did. Obviously I am not going to name colleagues of mine but if I am challenged in the House I will tell them to their faces." He (Sir A. Holbrook) thought that was a great reflection upon the character of the Members of the House. Three or four years ago when Mr. John made a similar statement he withdrew it and made an ample apology to the House. Dr. Salter had declined to withdraw his statement, and, moreover, had repeated it on more than one occasion. That constituted a breach of privilege and he therefore moved "that the speech of the hon. Member for West Bermondsey (Dr. Salter) reported in the *Daily Express* of Oct. 13th is a gross libel upon the Members of the House and a gross breach of its privileges."

The SPEAKER, after putting the question, asked if Dr. Salter was present.

There were cries from the Labour benches of "He has not received any notice."

Mr. CLYNES said he did not associate himself with the observations made outside the House by Dr. Salter. He trusted, however, that this motion would be resisted because of the offensive terms in which the subject had been discussed and because of the unnecessary and unfair countercharges which had been made.

An hon. Member: By a brewer's advocate.

Sir A. HOLBROOK rose to a point of order. He said that he had been charged with being a brewer's advocate.

Mr. BECKETT: Everyone knows it.

Viscountess ASTOR: Hear, hear.

The SPEAKER said that hon. Members must not make interruptions of that kind.

Mr. CLYNES, continuing, said that a speech like that of Sir A. Holbrook ought not to be made except in the presence of the Member concerned, and the House was entitled to know when the telegram was sent to the hon. Member, who was absent.

Mr. CHURCHILL (Chancellor of the Exchequer) said that the speech to which Sir A. Holbrook had drawn attention was unquestionably a very serious matter and a reflection upon the character and dignity of the House, and one which, if it were allowed to persist without being repudiated by the House, might gravely injure in the country the reputation of a democratic institution. It was always contrary to the general sense of the House to proceed to judge any matter in the absence of a fellow Member until they were assured that

the absence was due to some cause that the hon. Member had under his control. He would, therefore, ask the Speaker whether, if the House did not proceed any further with this matter that day, it could be raised again on the following day when Dr. Salter was in his place. If that were so, so far as the Government were concerned they would be prepared to move the adjournment of the motion till to-morrow.

The SPEAKER said that it was quite within the right of the right hon. gentleman to move that the debate be adjourned.

Mr. CHURCHILL accordingly moved the adjournment of the debate.

Mr. LLOYD GEORGE supported the motion of the Chancellor of the Exchequer. He said that he thought the Government had taken a very wise course. It was obviously very desirable that the hon. Member concerned should be present. There seemed to be some doubt whether Dr. Salter had received notice in time. It was undoubtedly a very serious charge to make against an assembly upon which so much depended. The repute of Parliament was not the inheritance of any particular party; it was important to the whole nation. Those who had any experience of these questions of privilege knew that on the whole it was very difficult procedure and the House did not always come out very well. He could not help thinking that Dr. Salter when he came face to face with the sentiment of the House—because it was a sentiment which was by no means confined to those who supported the Government, but was common to all parties in the House—he thought that the hon. Member would feel that not so much in his own interests as in the interests of the nation as a whole and the repute of such an important part of a constitution as the British Parliament it was desirable to withdraw the charge which might be only too readily taken up by those who did not know about Parliament. It was not true, and he was speaking as an old Member. Therefore, he sincerely hoped that opportunity would be taken to-morrow to clear up the situation and that it would not be necessary to proceed with Sir A. Holbrook's motion.

The debate was adjourned.

Outbreak of Infantile Paralysis.

Mr. AMMON asked the Minister of Health whether he would make a statement to the House as to the reported outbreak of infantile paralysis at Broadstairs and Leicester.

Sir KINGSLEY WOOD (Parliamentary Secretary to the Ministry of Health) replied: An outbreak of infantile paralysis occurred in Broadstairs this month. Fifty-three cases have been notified and there have been two deaths. The outbreak has been mainly restricted to private boarding schools and day-schools in Broadstairs; three cases have occurred in convalescent homes. A medical officer of the Ministry visited Broadstairs immediately and has conferred with the medical officer of health and the local medical practitioners as to the administrative arrangements for dealing with the outbreak. He has also been available for consultation in regard to individual cases. All necessary precautions have been taken to control the epidemic, leaflets of advice have been issued, and facilities for hospital isolation and disinfection provided. The outbreak in Leicester began at the end of July and reached its maximum in the week ending Sept. 18th. The last case was notified on Oct. 14th. There were altogether 73 cases, six of which were fatal. They occurred sporadically, all over the town. In no instance did more than one case occur in a household and no one school was specially affected. Each case was personally investigated by the medical officer of health who arranged for the necessary isolation and for treatment, either at the isolation hospital or the Royal Infirmary.

Mr. AMMON asked whether instructions were issued from the Ministry of Health, so far as Broadstairs was concerned, that all reports were to be suppressed and no information allowed to leak out.

Sir KINGSLEY WOOD said that the Ministry were satisfied that there was no question of sleepy sickness involved. In regard to publication, all notifications had been published in the official returns week by week and he thought it was last week that the Council at Broadstairs—the proper body to make a statement—issued an official statement to the public generally.

TUESDAY, OCT. 26TH.

Dr. Salter's Charge against Members.

On the adjourned debate on Sir A. Holbrook's motion with reference to a speech delivered on Oct. 13th by Dr. Salter,

Dr. SALTER explained his absence on the previous day. He said that he was an official medical referee of one of the largest trade-unions in the country and he was engaged on *subpœna* in the courts giving medical evidence in workmen's compensation cases. His first knowledge that the matter was to be dealt with in the House was at 4.15 P.M., when a telegram signed "Holbrook" was handed to him as he stepped from the witness-box. The telegram had been sent to his house and his people had had some difficulty in finding him. On receiving the telegram he proceeded as fast as possible to the House and interviewed the Speaker immediately on his arrival to explain the reason for his absence. The speech to which exception has been taken was delivered and reported over a fortnight ago, but although the hon. Member who had raised this matter in the House found time to indicate his intentions to a newspaper, he had not the courtesy or decency to inform him till it was too late. With regard to the main speech and the indictment against him, he (Dr. Salter) had to say, speaking with a full sense of responsibility and regardless of any consequences to himself, that he was not prepared to withdraw, modify, or apologise for anything he had said on this matter. He proposed to repeat the words which he had used and about which complaint had been made. At the same time the House should certainly know the setting of the remarks and the framework of the speech and not merely judge by two or three isolated sentences taken for sensational press purposes from the context and published in that form. The occasion on which the speech was delivered was that of a small local temperance meeting of a body which was celebrating its jubilee. He took occasion to make an historical review of the whole drink problem in this country during the last 100 years, and he pointed out that the problem was a totally different one to-day from that which confronted the founders of that Society. At that time gross and bestial drunkenness was common and even respectable, and the phrase, "as drunk as a lord," indicated that the practice was conventional even among the upper circles of society. He pointed out that to-day they had got rid almost entirely of that bestial drunkenness which disfigured our social life in earlier days and that that change had affected all ranks of society. Drunkenness to-day was considered disreputable and something entirely improper in any person who held responsible public office. He then went on to point out that although that was the case it still remained the unfortunate fact that a certain proportion of all classes in society—a small section, but none the less sufficient to figure in statistics in the courts—could not drink a little without drinking too much and that applied not merely to the poorer people, but even Members of that House were not exempt from that condemnation. He went on to say—and he repeated it that day—that he had seen Members of all parties in the House—his own party he regretted to say included—drunk in the House, not on one occasion but on many occasions. (Cries of "Name.") He was coming to the question of names.

The SPEAKER: I do hope the House will hear this matter quietly.

Dr. SALTER, continuing, said that when he said that he had seen such things he was making a statement which was within the common knowledge of practically every Member of the House, and it was a piece of affectation and hypocrisy for Members of the House to deny it. Since the matter was raised on the previous day from 50 to 60 Members at the very least had told him that they approved of what he had said. They might not have agreed altogether with the wisdom or propriety of making the utterance, or with the particular way in which it was made, but they did not contest the truth or accuracy of what he had said. He said further, that he had assisted other Members of the House to remove a hopelessly intoxicated Member from its precincts. That was known to Members on all sides. (Cries of "No.") It was common knowledge, and was a smoking-room jest. He repeated, as he stated in the press when he was tackled immediately after the speech, that he would do, the statement in the House in the presence of the persons who themselves were guilty. They must have a proper sense of proportion in this matter. They could not take 600 men and women drawn from all social grades, thrown together promiscuously, without finding a certain number amongst them who unfortunately, if they took any drink at all, invariably were unable to save themselves from the disaster of taking too much. It was a most unfortunate fact—a physiological fact—that the first effect of alcohol on some people at any rate was to remove all their powers of inhibition—all their powers of saying no. That was the reason why he and a number of his colleagues in the House were personal abstainers for the sake of the weaker brethren in the House as well as outside. The number of such persons in the whole community was relatively small, and the number in the House was relatively small; but no one could deny that they existed. He was in the 1922–23 Parliament and he saw more drunkenness then than he had seen in this Parliament. If it was a breach of privilege to criticise the action of certain Members who he considered disgraced the House, degraded the House, and lowered its tradition and its prestige by their actions; if that was a breach of privilege, let it be so. He had committed a breach of privilege and he could make no apology therefor, whatever the consequence to himself might be. He desired as earnestly and sincerely as anyone in the House to maintain the high prestige of the House and its authority in the country. He believed that the Parliamentary tradition alone would save the nation from ultimate

disaster—industrial and economic. He desired to see the authority of Parliament increased rather than diminished, but he ventured to say with all respect that that end would be attained far more if certain Members of the House reformed their ways, and if they were given no support, such as would be given by voting for a resolution of this sort, and by attempting to intimidate and browbeat a few people who had taken on them the thankless and unpopular task of pointing these matters out. If the House desired to pursue the matter further and to appoint a Select Committee, or refer the matter to the Committee of Privileges, he would be prepared to go to that Committee and, painful ordeal though it would be, he would mention the individuals in each party whom he knew to be guilty in this regard, and he would take with him to that Committee a large galaxy of colleagues in the House who would be prepared to support his statement. He was entirely unrepentant with regard to what he had said.

The SPEAKER: The hon. Member must withdraw while the House proceeds with the debate.

Dr. SALTER thereupon withdrew from the Chamber.

Mr. BALDWIN, Prime Minister, said that he knew from his own experience that in all classes a steady and rapid growth of temperance, by which he meant the temperate use of alcohol, had taken place throughout the country. In an assembly like the House of Commons with 600 Members there must be some cases where Members forgot themselves temporarily. They all knew it, but they never spoke about it. What had hurt the feelings of the House was that one of their number who worked with them and shared their social life had thought it his duty to speak about these things outside and not to express regret to the House for having done so. He had no doubt that it was a libel upon the Members of the House and a breach of privilege. He would vote for the motion.

Mr. CLYNES suggested that it would be best to regard Dr. Salter's speech at best or worst as a well-intentioned vigorous effort at temperance propaganda and withdraw the motion.

Sir A. HOLBROOK said that he regretted that he could not see his way to withdraw the motion.

Mr. LEES-SMITH moved as an amendment that the matter be referred to a Committee of Privileges.

On a division the amendment was defeated by 247 votes to 95—majority against, 152.

The motion was then carried without a division.

CHELSEA CLINICAL SOCIETY.—The annual dinner of the society was held at the Café Royal, London, on Tuesday last, Dr. Ernest Young, the President, being in the chair. Well-selected speakers made the dinner an interesting as well as amusing occasion. Sir John Rose Bradford, proposing prosperity to the society and saying that its hospitable instincts were derived from the great Harvey's own precepts, pointed out that the connexion between Chelsea and clinical medicine was made particularly close by the association of Chelsea with Sir Hans Sloane, lord of the manor, physician, botanist, and archæologist. Dr. Young, in reply, said that in the case of the Chelsea Clinical Society, founded 30 years ago, its comparative youth accorded with its vigour, for they had this year to announce increased membership of the society, record attendances at the meetings, and success at the dinner gatherings. The health of the visitors was proposed by Mr. Ivor Back, who described Lord Carson as the terror of the inexpert expert witness; begged the Dean of St. Paul's to explain whether his name rhymed with "a jolly good binge" or with "let us dance and sing"; while to the third responder to the toast, Sir Arthur Conan Doyle, he addressed a moving reproach, in that the latest Sherlock Holmes adventure contained no mention of that sympathetic medical character, Dr. Watson. Lord Carson replied directly to Mr. Back's challenge, and, after testifying to his personal debt to medicine and his admiration of the medical profession, confessed that he liked that profession least of all in the witness-box, for, speaking as an advocate, he found the medical witness adamantine. Dean Inge told some humorous stories, and Sir Arthur Conan Doyle was thoroughly interesting in his reminiscences of the life of the unqualified assistant, which years ago he had led in the course of a strenuous apprenticeship to and career in the profession—a course which included volunteer military service, medical officership to a whaler, and the lease of consulting-rooms near Cavendish-square, where, he said, "I had a consulting-room and a waiting-room, but gave up the tenancy when both became waiting-rooms." The toast of the Allied Medical Societies, proposed by Dr. Seymour Price, was replied to by Sir James Berry, and Mr. Mortimer Woolf invited the company to drink to the health of their President with musical honours. During the evening Mr. Sterndale Bennett entertained the company with original songs, and especially with a reproduction of a Primrose League orator, asking a league meeting to withstand the attacks of Socialism, and trying to explain to them the annual balance-sheet.

Medical Diary.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole-street, W.

TUESDAY, Nov. 2nd.—5.30 P.M., ORTHOPÆDICS. (Cases at 5 P.M.) Mr. A. H. Todd: Ununited Fracture of Neck of Femur. Case for Diagnosis: Congenital Malformation of Right Upper Limb and of Left Eyelid. 8.30 P.M., PATHOLOGY.

WEDNESDAY.—5.30 P.M., TROPICAL DISEASES AND PARASITOLOGY. Communications: Dr. Aldo Castellani: Some Observations on Certain Cases of Chronic Colitis. Dr. T. W. M. Cameron: Some Biological Conceptions of Hydatid. Dr. R. J. Ortlepp: The Species of Nematode Genus Physaloptera in Man. Mr. S. Annecke: The Relative Numbers of Male and Female Gametocytes in Human Malaria (*P. falciparum*, *P. vivax*, *P. malariæ*), and Hæmoproteus in Birds. Dr. J. B. Christopherson: Further Observations on a Case of Actinomycosis. 8.30 P.M., SURGERY. Discussion: The Treatment of Œsophageal Carcinoma, to be opened by Mr. F. J. Steward, who will be followed by Mr. H. S. Souttar. Members of the Section of Laryngology are cordially invited to take part.

FRIDAY.—5 P.M., LARYNGOLOGY. Cases at 4 P.M. will be shown by Mr. Bell Tawse, Dr. Dan McKenzie, Mr. T. B. Layton, Mr. Norman Patterson, and others. Presidential Address: Dr. Andrew Wylie: References in Literature and Folk-lore to Rhinology and Laryngology. Communication (with cinematograph demonstration). Sir Charles Ballance and Mr. Lionel Colledge: Effects of Nerve Anastomosis on the Movements of the Vocal Cords and Diaphragm. OTOLOGY: Annual dinner, Langham Hotel, 7.45 P.M. Mr. G. J. Jenkins in the chair. 8.30 P.M., ANÆSTHETICS.

SATURDAY.—10.30 A.M. (Cases at 9.45 A.M.). OTOLOGY. Papers on Diseases of the Outer Ear will be read as follows: Introductory Remarks, by the President (Dr. Dan McKenzie). Common Affections of the Skin of the Outer Ear, by Dr. A. M. H. Gray. Intractable Dermatitis of the Pinna and External Auditory Meatus Secondary to Chronic Suppuration of the Middle Ear, by Mr. F. C. Ormerod. Paper: Mr. F. J. Cleminson: Deafness Associated with Fragilitas Ossium. Cases and specimens will be shown by Mr. Ormerod, Mr. Cleminson, Dr. Dan McKenzie, and Mr. Franklin. Epidiascopic Demonstration: Dr. J. S. Fraser: A Case of Congenital Deafness with Malformation of the Bony and Membranous Labyrinth on Both Sides.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn-fields, W.C.

MONDAY, Nov. 1st.—5 P.M., Mr. C. E. Shattock: Scrotal Tumours.

THURSDAY.—5 P.M., Prof. Elliot Smith: The Significance of Anatomy. (Thomas Vicary Lecture.)

ROYAL COLLEGE OF PHYSICIANS, Pall Mall East, S.W.

THURSDAY, Nov. 4tth—5 P.M., Dr. F. G. Crookshank: The Theory of Diagnosis. (Bradshaw Lecture.)

FELLOWSHIP OF MEDICINE AND POST-GRADUATE MEDICAL ASSOCIATION, 1, Wimpole-street, W.

MONDAY, Nov. 1st, to SATURDAY, Nov. 6th.—FELLOWSHIP OF MEDICINE. Special lecture at the Medical Society of London, 11, Chandos-street, W. Thursday, Nov. 4th, at 5 P.M., Mr. C. Max Page on Observations on the Treatment of Fractures. Free to all members of the medical profession.—ROYAL NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland-street, W. Special afternoon demonstration in Clinical Surgery at 3 P.M. (Nov. 1st) by Mr. E. Laming Evans. Free to all members of the medical profession.—ROYAL LONDON OPHTHALMIC HOSPITAL, City-road, E.C. Special demonstration in Clinical Ophthalmology at 1 P.M. (Nov. 4th) by Mr. M. L. Hepburn. Free to all members of the medical profession.—HAMPSTEAD GENERAL HOSPITAL, Haverstock Hill, N.W. Practitioners' course in General Medicine and Surgery, 4.30 P.M. to 6 P.M. daily. Clinical demonstration followed by a lecture.—LONDON LOCK HOSPITAL, 91, Dean-street, W. Clinical work at the hospital each day from 1 P.M. onwards. Special lectures most afternoons. Further information from the Secretary of the Fellowship of Medicine.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.

MONDAY, Nov. 1st.—2 P.M., Medical Cases in the Wards. 2.30 P.M. to 5 P.M., Medical, Surgical, and Gynæcological Clinics. Operations.

TUESDAY.—2.30 P.M. to 5 P.M., Medical, Surgical, Throat, Nose, and Ear Clinics. Operations.

WEDNESDAY.—2.30 P.M. to 5 P.M., Medical Skin and Eye Clinics. Operations.

THURSDAY.—2.30 P.M. to 5 P.M., Medical, Surgical, and Ear, Nose, and Throat Clinics. Operations.

FRIDAY.—2.30 P.M. to 5 P.M., Surgical, Medical, and Children's Diseases Clinics. Operations.

On Tuesday, Nov. 2nd, and Thursday, Nov. 4th, at 2.30 P.M., there will be special demonstrations of ear, nose, and throat cases and medical cases by Mr. W. Ibbotson and Dr. A. J. Whiting respectively.

WEST LONDON POST-GRADUATE COLLEGE, West London Hospital, Hammersmith, W.
MONDAY, Nov. 1st.—10 A.M., Dr. Dowling: Skin Dept. 12 noon, Mr. Simmonds: Demonstration in Fractures and Applied Anatomy. 2 P.M., Mr. Addison: Surgical Wards.
TUESDAY.—10 A.M., Medical Registrar: Clinical Methods. 12 noon, Dr. Burrell: Chest Cases. 2 P.M., Mr. Sinclair: Surgical Out-patients.
WEDNESDAY.—12.15 P.M., Dr. Burnford: Medical Pathology. 2 P.M., Mr. Tyrrell Gray: Operations. 2 P.M., Dr. Owen: Medical Out-patients.
THURSDAY.—10 A.M., Dr. Grainger Stewart: Neurological Dept. 2 P.M., Mr. Bishop Harman: Eye Dept. 2 P.M., Mr. MacDonald: Genito-Urinary Dept.
FRIDAY.—10 A.M., Sir Henry Simson: Gynæcological Operations. 2 P.M., Dr. Burrell: Medical Out-patients. 2 P.M., Mr. Vlasto: Throat, Nose, and Ear Dept.
SATURDAY.—9.30 A.M., Dr. Burnford: Bacterial Therapy. 10 A.M., Dr. Saunders: Medical Diseases of Children. Operations, Medical and Surgical Out-patients, special Departments, daily 10 A.M. to 5 P.M., Saturdays 10 A.M. to 1 P.M.

POST-GRADUATE HOSTEL, Imperial Hotel, Russell-square, W.C.
MONDAY, Nov. 1st.—9 P.M., Sir James Dundas-Grant: Some Clinical Experiences.
FRIDAY.—9 P.M., Dr. E. I. Spriggs: Diverticulosis. Dinner 8 P.M. 5s.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street.
THURSDAY, Nov. 4th.—4 P.M., Dr. G. F. Still: The Urine in Childhood.

NATIONAL HOSPITAL, Queen-square, Bloomsbury, W.C.
MONDAY, Nov. 1st.—2 P.M., Dr. Hinds Howell: Out-patient Clinic. 3.30 P.M., Dr. Risien Russell: Vertigo.
TUESDAY.—2 P.M., Dr. Walshe: Out-patient Clinic. 3.30 P.M., Dr. Hinds Howell: Muscular Atrophy.
THURSDAY.—2 P.M., Dr. Kinnier Wilson: Out-patient Clinic. 3.30 P.M., Mr. Just: Intracranial Infection after Otitis Media.
FRIDAY.—2 P.M., Dr. Adie: Out-patient Clinic. 3.30 P.M., Dr. Bailey: The Electrical Reactions of Muscles.

LONDON SCHOOL OF DERMATOLOGY, St. John's Hospital, 49, Leicester-square, W.C.
TUESDAY, Nov. 2nd.—5 P.M., Dr. Knowsley Sibley: Principles of Treatment. Local.
THURSDAY.—5 P.M., Dr. A. M. H. Gray: Eruptions Due to External Irritants.

ROYAL INSTITUTE OF PUBLIC HEALTH, 37, Russell-square, W.C.
WEDNESDAY, Nov. 3rd.—4 P.M., Dr. H. M. Vernon: Ventilation in Relation to Health.

UNIVERSITY OF SHEFFIELD POST-GRADUATE CLINICS.
FRIDAY, Nov. 5th.—3.30 P.M., at the Royal Infirmary: Dr. Hallam: Demonstration of Some Common Skin Diseases.

MANCHESTER ROYAL INFIRMARY POST-GRADUATE COURSES.
TUESDAY, Nov. 2nd.—4.15 P.M., Dr. W. Dyson: Eczema in Relation to Sensitisation of the Skin.
FRIDAY.—4.15 P.M., Prof. R. B. Wild: Cancer of the Skin.

ANCOATS HOSPITAL POST-GRADUATE COURSE.
THURSDAY, Nov. 4th.—4.15 P.M., Mr. Harry Platt: Treatment of Common Injuries.

JAMES MACKENZIE INSTITUTE FOR CLINICAL RESEARCH, St. Andrews.
TUESDAY, Nov. 2nd.—4 P.M., Dr. R. Barclay Ness: Difficulties in the Clinical Diagnosis and Prognosis in the Various Forms of Chronic Bright's Disease. Discussion to be opened by Dr. C. E. Douglas.

Appointments.

BURNHAM, CECIL, M.B., Ch.B., F.R.C.S. Edin., has been appointed Surgeon to the Out-patients of the French Hospital.
COMPTON, A., M.D., D.Sc., Director of the Municipal Bacteriological and Chemical Laboratories, Alexandria.
Paddington Green Children's Hospital: YOUNG, J. M., M.B., B.Ch. New Zealand, House Physician; EVANS, J. P., M.R.C.S., L.R.C.P. Lond., House Surgeon.
Royal Halifax Infirmary: POLLARD, P.L., M.B., Ch.B. Manch., and HENRY, Mc.W., F.R.C.S. Edin., Senior Honorary Surgeons; CLARK, T. L., M.D. Edin., and BOLTON, S., M.D. Edin., Assistant Honorary Surgeons.

Vacancies.

For further information refer to the advertisement columns.

Bethlem Royal Hospital, Lambeth-road, S.E.—Jun. Asst. P. £350.
Bradford Royal Infirmary.—H.S. £150.
Central London Ophthalmic Hospital, Judd-street, W.C.—Asst. Surg.
Central London Throat, Nose, and Ear Hospital. Gray's Inn-road, W.C.—Hon. Asst. Anæsth.
Coventry and Warwickshire Hospital, Coventry.—Res. H.S. £125.
Darlington County Borough.—Deputy M.O.H. £750.
Epsom Union.—M.O. and Public Vaccinator. £93 6s. 8d.
Essex, Administrative County of.—Asst. County M.O.H. £600.
Federated Malay States Medical Dept.—Radiologist. £700.
Freemason's Hospital and Nursing Home, 237, Fulham-road, Chelsea, S.W.—Res. M.O. At rate of £250.
Herefordshire General Hospital.—Hon. S.
Hospital for Consumption and Diseases of the Chest, Brompton, S.W.—Pathologist and Supt. £750. Also Asst. P.
Hospital for Epilepsy and Paralysis, Maida Vale, W.—Med. Reg. £100.
Hospital for Sick Children, Great Ormond-street, W.C.—Bio-Chemist. £600.
Hull Royal Infirmary.—Hon. Phys.
London, Female Lock Hospital, 283, Harrow-road, W.—Hon Obstet. S.
London, Homœopathic Hospital, Great Ormond-street, W.C.—Asst. P. for Dis. of Women.
London, Royal Free Hospital, School of Medicine for Women. Obstet. and Gyn. Unit.—Sen. Asst., £350. Also Third Asst. £270.
London, Temperance Hospital, Hampstead-road, N.W.—Hon. P. Also Clin. Asst. in Cas. Dept.
Manchester, Ancoats Hospital.—Anæsthetist. 10s. 6d. per attendance. Also Pathological Reg. £100.
Manchester Corporation, Public Health Dept.—Asst. M.O.H. (Maternity and Child Welfare). £850. Also Asst. M.O.H. £750.
Manor House Hospital, Golders Green, N.W.—Asst. S. £750.
Middleton-in-Wharfedale Sanatorium.—Sen. Asst. M.O. £600.
Miller General Hospital for South-East London, Greenwich-road, S.E.—Asst. P. and two Asst. S.'s.
Newark Hospital and Dispensary.—Res. H.S. At rate of £200.
Northampton General Hospital.—Hon. S.
Northumberland, Wooley Sanatorium, near Hexham.—Med. Supt. £850.
Norwich, Norfolk and Norwich Hospital.—H.S. for Ear, Nose and Throat and Ophth. Dept. £120.
Royal Northern Hospital, Holloway, N.—M.O. to Out-patients. At rate of £125. Also H.S. At rate of £70.
St. George's Hospital, S.W.—Temp. Obstet. Reg. £40.
St. Mary's Hospital, W.—Phys. for Mental Diseases.
St. Mary's Hospital for Women and Children, Plaistow, E.—Res. M.O. and Asst. Res. M.O. At rate of £175 and £130 respectively.
St. Stephen's Hospital, 369, Fulham-road, S.W.—Third Asst. M.O. £300.
Sheffield Royal Hospital.—Ophth. H.S. £80.
Sheffield, Winter-street Hospital.—Jun. Asst. Tub. O. £350.
Throat Hospital, Golden-square, W.—H.S. At rate of £100.
West London Hospital, Hammersmith, W.—Phys.

The Chief Inspector of Factories announces vacancies for Certifying Factory Surgeons at Mere (Wiltshire), Newmilns (Ayrshire), and at Tilbury (Essex).

Births, Marriages, and Deaths.

BIRTHS.

EDWARDS.—On Oct. 18th, at Warwick House, Hemel Hempstead, the wife of Frank H. Edwards, F.R.C.S.E., of a son.
GRIFFITHS.—On Oct. 19th, at Farfield House, Kidderminster, the wife of P. Digby Griffiths, M.B. Camb., of a daughter.
SALISBURY.—On Oct. 21st, at 19, The Drive, Northampton, the wife of Walter Salisbury, M.S., M.D., F.R.C.S., of a daughter.

MARRIAGES.

O'SHAUGHNESSY—HUNTON.—On Oct. 3rd, at the Cathedral, Khartoum, Sudan, Laurence Frederick O'Shaughnessy, F.R.C.S. Eng., Sudan Medical Service, to Gwendolen Mary Hunton, M.B., B.S., C.M.S. Hospital, Omdurman, daughter of the late Frederick Hunton, M.D., of Sedgefield, County Durham.
PHILLIPS—NAISH.—On Oct. 23rd, at St. James's, Paddington, Sir John Phillips, M.D., J.P., to Beatrix Margaret, eldest daughter of the Rev. Francis Clement Naish, vicar of Upnor, Kent, and formerly vicar of Holy Trinity, Milton-next-Gravesend.

DEATHS.

BOWES.—On Oct. 21st, at Greeba, Oxenden-square, Herne Bay, after a very short illness, Charles Kessick Bowes, M.A., M.D.
GRUGGEN.—On Oct. 19th, after a short illness, Dr. William Gruggen, M.O.H., of Durban-road, Watford.
HOLMES.—On Oct. 21st, at his residence, Wilbury-road, Hove, Colonel Thomas James Paul Holmes, M.B., L.R.C.S.I., R.A.M.C. (retd.), aged 81.
LLOYD.—On Oct. 23rd, at Tawelfan, Vale-street, Denbigh, N. Wales, David Lloyd, M.B., C.M. Glasg., J.P.
ROBINSON.—On Oct. 18th, at a nursing home, result of service, Captain George Cuthbert Robinson, M.R.C.S., L.R.C.P. Lond., R.A.M.C.
SCOTT.—On Oct. 24th, at his residence, Amherst-road, Ealing, Colonel Bertal Hopton Scott, C.M.G., M.B., B.Ch., A.M.S. (retd.).
SWANN.—On Oct. 25th, at a London nursing home, Mary Aelfreda St. Clair Swann, M.B., aged 27.
WILSON.—On Oct. 25th, at Bushey, Herts, Daniel Wilson, M.D.

N.B.—A fee of 7s. 6d. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Comments, and Abstracts.

RHEUMATIC DISEASE IN INDUSTRY.*

BY MATTHEW BURROW RAY, D.S.O., M.D. EDIN.,
HON. SEC., BRITISH COMMITTEE ON RHEUMATISM, INTERNATIONAL SOCIETY OF MEDICAL HYDROLOGY.

THE prevalence of rheumatic disease, both in this country and over Northern Europe generally, is a serious drain on the industrial resources of the countries concerned. The increased interest that is being taken in the problem of its prevention and arrest is largely due to the issue two years ago of the report on the Incidence of Rheumatic Diseases by the Ministry of Health, based on an inquiry made by 49 practitioners. Some striking figures in this report may be recalled. Each year some 370,000 insured persons seek advice for one or other form of rheumatic disease. In males these conditions are responsible for exactly one-sixth of the total sick absence from all causes. Nearly one-third of the male sick absence is due to non-articular rheumatism. Acute and subacute rheumatism only account for one-seventh. The sick absence in females amounts to one-seventh of the total from all causes. One-half of this is due to chronic joint disease, principally rheumatoid arthritis, which accounts for 30 per cent. One-seventh of the total sick benefit or nearly £2,000,000 is paid away annually to the insured population in respect of invalidity from these diseases and over 3,000,000 weeks of work are lost in consequence. This huge sum of money is not being spent in the provision of any treatment whatsoever; the allowance is for subsistence only.

What are the facilities at present available in this country for the treatment of this rheumatic population? The vast majority have to rely on what their ordinary medical attendant is able to give them. In the comparatively trivial cases it is no doubt enough, but there must remain a very large number who are not being adequately looked after. When we consider that the total number of beds available at the spa hospitals amounts to 681 and the annual number of patients treated for all diseases is 8606, of which 93 per cent. belong to the rheumatic group, we at once see that the supply does not come anywhere near the demand. Apart from the great spa hospitals there are no institutions where the insured rheumatic patient can obtain treatment of the kind likely to prove most beneficial. The physical treatment available at the out-patient departments of some of the larger hospitals hardly comes under this category.

Situation in Other European Countries.

Before considering how these defects can be remedied and what further facilities should be supplied, I will briefly summarise the situation as it exists in other European countries, based on reports presented to the conference on industrial rheumatism held last November.[1]

Holland.—There are no statistical official data to go on, but the number of rheumatic patients is very great. There are no spas and physical treatment is concentrated at the Central Institute for Physical Therapy in Amsterdam, of which Dr. J. van Breemen is director. Private patients who attend this Institute are mostly at a late stage of the disease and do not always finish their cure. Ten years ago panel patients were few in number, but now, under an agreement by which the sick funds guarantee rheumatic sufferers free treatment, nearly every panel patient who develops rheumatism comes to Dr. van Breemen in course of time. Every year he sees from 900–1000 patients with chronic rheumatic disease and another 1000 cases are sent to spas in other countries or treated at home. At the Institute general treatment with steam hot-air or electric light baths, douche massage, and mercury-vapour lamp is given for the improvement of the circulation, metabolism, and nervous system. These are found to have a favourable influence on local processes even without local treatment. To improve the functions of the joints fango, diathermy, local hot air and light baths, massage and exercises are employed. Dr. van Breemen pays a tribute to the extreme value of the Scottish douche in the treatment of what he describes as neuralgias of rheumatic origin. His general conclusions are as follows:—

1. For the better prevention of invalidity from rheumatic disease the wide application of physical treatment and baths is very necessary.
2. The study of the skin as an organ is a preliminary to the efficacious battle against rheumatism.
3. Spas should take measures to ensure the efficient treatment of panel patients.
4. In rheumatism the margin of safety in regard to rest and exercise is more limited than in the healthy subject.
5. Between the function of a joint and its pathological-anatomical condition there is often a great incongruity.
6. The establishment of clinics and laboratories for methodical research in rheumatism is greatly to be desired.
7. Every occupation has its own distinctive rheumatism.
8. The foundation of an international committee to bring more scientific and practical unity into the study and combating of rheumatic disease is essential.

Sweden.—There are no exact statistics of the incidence of rheumatic disease, but the available figures show that articular rheumatism ranks next to the infirmities of old age and above pulmonary tuberculosis in causing invalidity. Every year out of a population of 6,000,000 about 1500 persons are pensioned for articular rheumatism. As the disease is of long duration this entails great expense to the community.

Dr. G. Kahlmeter (Stockholm), consultant to the Direction des Pensions de Retraite, reports facilities for treatment as follows:—

The Spas.—Of these there are about 50 under private management, some of them centuries old, open only for about two and a half months in the year, and many of them not equipped to treat the different forms of disease. Prices vary, the cheapest rate being the equivalent of £10 for five weeks' treatment. The total number under treatment for all diseases is round about 30,000 each year, probably about 5000 being rheumatic cases.

Board of Pensions Institutions.—These are intended to prevent disabling—i.e., permanent pensioning. There are four in different parts of the country with 350 beds in all, compared with 681 beds available at the spa hospitals of Great Britain. They are directed by physicians, are open all the year, possess all the modern appliances for treatment, and are specially designed for the industrial classes. The course of treatment lasts two to three months; the patients get dental and orthopædic care, and, if necessary, are taught trades more suitable for their health. Two-thirds of the expense is borne by the State, the remaining third is paid by the patient himself or by the community to which he belongs if he is without means.

General Hospital Treatment.—This is practically confined to acute cases, very much as in this country. The Board of Pensions are, however, now building special departments in connexion with three of the largest hospitals for the treatment of arthritis and rheumatism.

Dr. Kahlmeter points out that they are still without what he regards as the most urgent thing—viz., a central arthritis hospital in Stockholm in close connexion with the university clinics. The Swedish committee for the combating of rheumatism is considering the provision of such a hospital.

Denmark.—There is no systematic movement for combating rheumatic affections. Among the 1,400,000 members of the authorised sick benefit club, which practically means the whole working-class of the country, 42,000 cases of rheumatism occur annually. There are no spas where gout and rheumatism can be treated, but six or seven private sanatoria use physical methods. Dr. Hans Jansen (Copenhagen), director of the Department of Physical Treatment, thinks there is a great need of more institutions of this kind and of others specially devoted to the treatment of rheumatic affections. For the total number of cases treated in 1923 was only about 3000: 1850 at the hospitals, 900 at private sanatoria, and 250 at the recently opened People's Sanatorium at Hald.

Switzerland.—There are, according to Dr. Frank Kornmann (Ragaz-Pfäffers), no available returns of cases of rheumatism and no systematic treatment. Insured members or members of sick benefit societies are treated according to opportunity, privately or as in-patients in cantonal hospitals or as out-patients at the chief hospitals or at the spas. At Ragaz all classes are treated and free board and lodging are available for those unable to pay. The treatment for chronic rheumatism includes protein therapy, X rays, movements, and physical treatment, especially by bath cures. When a specific ætiology is discoverable the corresponding specific treatment is added. The results are only partly recorded at out-patient clinics and at the spas. At the Geneva Polyclinic for Physical Treatment cases of chronic articular rheumatism form 30 per cent. of the total. It is worthy of note that 34 per cent. of rheumatic cases come from Geneva itself, 19 per cent. from the coast of the lake, 47 per cent. from the valleys of the Rhone and the Arve. The results of the Polyclinic in rheumatic cases show that slight and early cases are often entirely cured. The more chronic cases frequently show sufficient improvement to enable the patient to lead a normal or quasi-normal life and at any rate to avoid hospitalisation.

Roumania.—There is a general fund for social insurance under the Ministry of Labour. Insured working people who suffer from chronic rheumatism are treated at a marine sanatorium with 300 beds, where medicinal mud baths and other forms of hydrological treatment are available. The very poor people who do not come under the insurance scheme are treated in the Red Cross sanatoria, a certain number being sent to the marine sanatorium mentioned

* Based on a paper read before the Harrogate Medical Society.
[1] THE LANCET, 1925, ii., 1169.

above. Prof. A. Theohary informs us that increasing funds are now being allotted by public bodies in Roumania for the spa treatment of chronic affections among the poorer population.

France.—Sufferers from rheumatic complaints are treated at the thermal hospitals, the ordinary hospitals apparently admitting no rheumatic cases. Chronic cases are hospitalised in the asiles. Dr. Monod (Vichy) tells us that there is no national organisation for the treatment of these conditions and no statistics have been published.

The Need for Research.

Rheumatic disease, as van Breemen truly points out, is a clinical concept, not a disease picture; and, although an attempt to classify diseases of more or less unknown ætiology cannot lead to satisfactory results from the point of view of terminology, orderliness in description demands the adoption of some sort of temporary classification or tabulation. That proposed by the Ministry of Health meets the requirements. With the slow progress of knowledge whenever the ætiology of any member of this ill-defined group is thoroughly worked out, the terms rheumatic and rheumatism are dropped in relation to it. We no longer apply them to the various forms of infective arthritis; we should not speak of gonorrhœal or scarlatinal rheumatism. Chronic rheumatism is disappearing from our medical vocabulary. The difficulties of classification will solve themselves with the increase of knowledge consequent on more extended facilities for research.

No doubt there are great opportunities waiting for further victories in bacteriology and biochemistry; no research work can be considered worthy of the name that does not lay claim to their fullest activities. But there are other directions where research is needed—e.g., the influence of endocrine imbalance and the existence of a definite arthritic diathesis. Llewellyn has drawn attention to the close relationship that exists between certain forms of rheumatic disease and goitre. The association of arthritis with the climacteric is too well known to be dismissed as a coincidence. Climatic influences are still largely unexplained. Beyond the observation that a clay soil is "bad" for rheumatism there is not much on which to found an opinion as to what constitutes a "good" one. Certain dicta about the siting of houses and streets with regard to their elevation, aspect, hours of sunshine, proximity to the sea or to rivers, copied from one text-book to another, do not rest on a scientific foundation. No valid reason has been given in support of the popular idea that marine stations are unsuitable places of residence for rheumatic subjects.

The nebulous state of our ideas on these and many kindred questions is undoubtedly due to the insufficiency of our knowledge of the functions of the skin as a protecting agent and the main channel through which the resistance of the body is maintained. When we consider that one-third of the entire blood-supply of the body is capable of being contained at one time in the cutaneous circulation, the importance of further research into the physiology of this organ is at once evident.

Certain trades are more prone to the incidence of rheumatic disease than others. Trustworthy data on this point can only be obtained from careful investigation of large numbers of workers in the various trades. Not only the workers themselves but the conditions under which they are employed must be carefully gone into. How far van Breemen's saying that every trade has its own particular variety of rheumatic disease is true in this country we do not know, and our ignorance indicates a possible line of fruitful inquiry.

Research on the lines thus briefly indicated has been impracticable for the reason that the material is not readily available. Where are the majority of the cases to be found? The more severe types, chiefly in their early stages, are scattered in twos and threes throughout the general hospitals, where they are in most instances thoroughly investigated from every side—bacteriological, biochemical, radiological, dental, and cardiological. But there is no statistical correlation of such cases and much valuable work is wasted. The more advanced and practically bed-ridden cases are to be found mainly in the Poor-law infirmaries where ample opportunities for the study of end-results are available, but this study is more depressing than valuable, especially if there is nothing else to see. The less serious cases, most of those for which much can be done, are found frequenting the surgeries of insurance practitioners at stated intervals to renew their certificates of disability. No one probably realises more fully than the medical attendant the hopelessness of doing any permanent good to these people without recourse to physical methods of treatment. He is aware of the necessity of highly specialised investigation. But where is he to obtain it? He does the best he can by trying to secure admission for them to one or other of the spa hospitals. Unfortunately, however, the less obvious and permanent the disability, the smaller the chance of securing admission thereto. Apart, therefore, from the Poor-law institutions the only places where cases are collected and available for thorough clinical research are the spa hospitals and here also the end-results are in a depressing proportion.

The remedy for this unsatisfactory state of affairs must afford the maximum amount of service with the minimum amount of expenditure of energy. To begin with, the cases must be collected and then sorted. To commence with, a central clearing house should be provided to which all cases would be recommended by their insurance doctors. Such an institution would form a regular "arthritis unit" with medical director and staff of specialist investigators. Every case sent to the unit would be submitted to investigation, not only bacteriological and biochemical, but on the lines I have briefly sketched out. Careful records would be kept. The unit would decide the future disposal of the case. It might be deemed necessary to keep one case for special observation, another might be instructed to attend at certain times, while a third would possibly be sent to one or other of the spa hospitals.

The first effect of all this would be to prevent the spa hospitals being crowded with unsuitable cases and thus to increase the accommodation for hopeful cases. There would also be a concentration of clinical material out of which a selection of suitable patients for further investigation could easily be made. As such investigations necessarily include inquiries into home and work surroundings, family histories, and the like, the services of non-medical voluntary workers would be enlisted. Research would then proceed on two parallel lines: individual as regards the case immediately under observation, and general as regards the accumulation of data eventually to form the basis for statistical information. As time went on these units or clinics would have to be multiplied and established in all large centres of population. Rheumatic disease is just as prevalent in rural as in urban districts and this difficulty must be faced in any comprehensive scheme by providing lodging accommodation in the neighbourhood of the unit, or by the establishment of hostels, the former being the cheaper to begin with.

Provision of Treatment in Large Towns.

The supply of adequate treatment for the insured rheumatic population is being carefully considered by a committee of the International Society of Medical Hydrology, which has suggested the establishment in all large centres of population of institutions where the services of medical teams will be available. Such a team would consist of a physician (acting as director), a surgeon, a dentist, a radiologist, a throat specialist, a bacteriologist, and a bio-chemist. In-patient treatment would only be required for cases needing special observation and for those who for any reason could not attend as out-patients. Treatment would include vaccine therapy, dental, surgical, and orthopædic treatment as well as measures for the relief of pain, for allaying, for rendering stiff tissues supple, for increasing absorption, and for re-educating muscles. Such measures would comprise saline and aerated baths, whirlpool baths, vapour baths, both local and general, packs of peat, mustard and fango massage, and manipulative douches. The general effect of the various forms of treatment would be the subject of research and careful records and measurements would be made. Inquiry into the comparative value of various kinds of treatment is only possible when large numbers of patients are being dealt with, and the scheme assumes that these units would act as a much-needed stimulus to the serious study and practice of physico-therapy.

Increased Facilities for Treatment at the Spas.

A scheme for dealing with insured rheumatic patients has been formulated by the British Spa Federation, under which treatment is offered either free or at greatly reduced rates. The scheme deals mainly with the class of case which does not require bed treatment or nursing. Accommodation for these cases should be found in hostels established either by the Ministry of Health, the friendly societies, or some local committee; in the initial stage the cheaper and easier course might be taken of providing approved lodgings. For patients requiring bed treatment and nursing, admission to the local mineral water hospital is suggested. In the view of the subcommittee patients should not be certified for spa treatment by their panel doctors, but should pass through one or other of the arthritis units or clinics where their future disposal would be decided after a thorough investigation of their condition. This would ensure the fullest advantage being taken of the available accommodation and unsuitable cases would not find their way to spas to the detriment of others more likely to benefit. The federation estimates that taking the spas as a whole 1500 patients could be under treatment at any one time; this would amount in round figures to close on 20,000 for nine months of the year, allowing a three weeks' stay for each case. Patients should attend at a central place where they would be seen at certain times by those medical men who elect to undertake this work, medical attendance and remuneration being on a sessional basis.

ANOTHER ACTION FOR WRONGFUL CERTIFICATION.

POSTLETHWAITE *v.* PHIPPS AND PRECOX.

UNDER the auspices of the Listerian Society a mock trial was held before the Right Hon. the Lord Chancellor (Lord Cave) and a special jury, of which Lord Hambleden was foreman, at King's College Hospital Medical School, on Wednesday, Oct. 20th. The following members of the society took part: Dr. John Wood (Oswald Postlethwaite), Miss C. Gibson (Lottie Postlethwaite), Dr. R. L. Quilliam (Dr. Sigmund Waterman), Dr. E. B. Strauss (Dr. Dementius Precox), E. N. Butler (Dr. Phipps), and Miss M. McHugh (Flora Macdonald).

Mr. John Forster, of Gray's Inn, represented the plaintiff, Oswald Postlethwaite, a poet, of Gossamer-road, Chelsea. On June 5th, 1926, the cook, Flora Macdonald, had entered the poet's room with his tea, interrupting a moment of inspiration. She had also opened the window, so that his papers were blown about the room. Seizing what he believed to be a ruler, the enraged poet had hurled it at the cook, finding later on that he had really thrown a knife at her. Although he had long been subject to outbursts of fury if interrupted at work, this apparently homicidal attack alarmed his sister, who sent for the local practitioner, Dr. Phipps. The doctor's questions enraged the poet, who became violent. Dr. Dementius Precox, an eminent alienist, was therefore called in, and made another examination, which still further accentuated the anger of the patient, who attacked the specialist. Dr. Phipps and the odd-job man were called to the rescue, and hyoscine was administered. The stuporous poet was then removed, under an Urgency Order, signed by Dr. Precox, to the West Central Asylum. On this Order the doctor had stated, as facts indicating insanity, that the poet believed that there was a conspiracy between the Prime Minister, the Archbishop of Canterbury, and all the Members of Parliament to prevent the publication of his poems, that he stated that no one could understand his poetry, and that he was a reincarnation of the poet Ovid. Mr. Forster submitted that it was for Dr. Precox to prove that the poet was not in fact a reincarnation of the poet Ovid. The qualifications of Dr. Precox were given as M.D. Camb. and F.R.C.P. Lond., and were only peculiar in that he had also an honorary D.Sc. Aberdeen. Another item he had entered on the certificate was that the patient had called Dr. Precox's "aid to monocular vision" the "green eye of the little yellow god," and dealt him a blow on the face which dislodged that apparatus. As soon as the influence of the drug had passed off the poet behaved with such restraint that the superintendent of the asylum, Dr. Sigmund Waterman, discharged him at the end of a week. Mr. Postlethwaite then conceived the idea that Dr. Phipps and his sister were plotting to get him out of the way in order that they might marry, and consulted his friend and pastor, the Rev. Josiah Pentwhistle, a Fire Baptist, who advised him to bring the present action for wrongful detention and defamation of character.

Mr. Forster, having outlined the plaintiff's case as above, then called witnesses.

Evidence for the Plaintiff.

Mr. Oswald Postlethwaite, a lugubrious gentleman in dark glasses, with a lock of damp black hair over his forehead, deposed to the truth of the facts as outlined. He admitted that he was a genius, and only a moderately-tempered genius. The cook had on this occasion caused him to lose a moment of priceless inspiration which might never return. He had published one volume only, and that under the auspices of the Fire Baptists. Other publishers had refused to consider his work. He still believed that there was, in fact, a conspiracy between the Prime Minister, the Archbishop of Canterbury, and all the Members of Parliament to influence publishers against him. The questions of the two doctors had been such as would arouse the suspicions and rage of any man. He had fought for his liberty. Dr. Phipps had visited the house on many occasions when not required professionally, and had also been seen examining the rings at Woolworth's. The poet's household was maintained on his sister's private fortune, not on the revenue from his works.

Cross-examined by Mr. R. O'Sullivan, of the Middle Temple, counsel for the defendants, Mr. Postlethwaite said that he had at times read his poems to his sister, the cook, and the gardener. He did not agree that he had bribed them to listen; on occasions, when exhausted with the fire of declamation, he had refreshed himself with the gardener in the summer-house. The form of refreshment was gin. He took gin to assist him with his work. He worked a great deal. He had been attended by Dr. Phipps for gastritis, whether attributed to a bout of gin he could not say.

Miss Lottie Postlethwaite substantiated the facts of the case. She had sent for Dr. Phipps to see if anything could be done for her brother's fits of temper, because the cook had complained, and she did not wish to lose her. Geniuses were common, but cooks were not so common. She did not believe her brother had ever been insane at all. She was quite positive that there was a conspiracy, as he stated, to prevent the publication of his poems. She had not read any of them herself, but her brother had read them to her frequently. She admitted to 49 summers. Dr. Phipps had repeatedly proposed to her during the last nine months, and she had refused him. She had allowed herself to be guided by the specialist in signing the Urgency Order, but had refused to sign another Order at the end of the week.

Dr. Sigmund Waterman said that the patient had not been fit for examination before June 8th; such violence as he had shown in the asylum was consistent with the effects of hyoscine. There was no evidence that he had ever been insane. Cross-examined, he admitted that he was an admirer of the plaintiff's poems, and wished he would write some more.

The next witness, on being asked if he were the Rev. Josiah Pentwhistle, replied in the negative, and stated that he was a reincarnation of the prophet Isaiah. Counsel requested his lordship's ruling as to whether the evidence were relevant, as the individual appeared to be one over whom the Court could have no jurisdiction. His lordship admitted the point, but said he was loth to disallow the evidence as it promised to be interesting. The witness then deposed that he was a minister of the Fire Baptists. The doctrine of this body included the belief that every member of the sect was the reincarnation of some historical personage, and each aspirant to membership was required to appear in a public place with a bucket of boiling brandy on his head. The brandy subsequently became the property of the clergy. He did not himself write poetry, but might at times inspire it.

Evidence for the Defence.

The counsel for the defence submitted that there was no case at all against Dr. Phipps, since he had signed no paper, and asked for his lordship's ruling. Counsel for the plaintiff said that the case against Dr. Phipps was one of conspiracy, and hence the act of one was the act of both. His lordship thought it was better to allow the question to go to the jury. Mr. O'Sullivan continued the case for the defence by saying that it was based on Section 330 of the Lunacy Act, which protected medical practitioners from damages provided they had acted in good faith and with reasonable care.

Dr. Phipps deposed that he had attended plaintiff off and on for three years, and on one occasion for an attack of gastritis due to a bout of gin. He had thrown things at the cook before.

(In answer to a question by his Lordship: The same cook.)

Examination continued: There was no conspiracy between him and Miss Postlethwaite; she had never been asked to marry him. He had never inspected diamond rings at Woolworth's. His visits to plaintiff's house had been purely professional. He drew attention to his age, which was 29. He agreed with counsel that Miss Postlethwaite's belief in his ardour might be a delusion, and that delusions ran in families.

A Juryman: "Did you put any irritating questions?"

Dr. Phipps: "I examined him with regard to his mentality. He was certainly irritated."

Dr. Dementius Precox, on being asked if he were the celebrated alienist, replied, "I have made a special study of psychiatry." He would define delusional insanity as "a condition of mental disorder characterised by delusions." Violence was not an essential feature of it. He had made an entirely independent examination of the plaintiff, and had exercised the tact for which, he thought, he was well known. He regarded him as a danger to the household. He did not regard failure to secure publication of poetical works as a sign of insanity; nor would he so regard success.

Mrs. Flora Macdonald denied slamming the door, but admitted opening the window, and confirmed the remaining facts as far as they concerned herself.

Verdict.

His lordship, addressing the jury, outlined the working of the "Urgency Order" and the importance of invoking it only in cases of real emergency. He felt it his duty to inform them that he did not consider there was any case against Dr. Phipps.

The jury, after a brief discussion, found for the defendants.

Mr. Arthur Cheatle, President of the Listerian Society, thanked the Lord Chancellor for taking part in the proceedings.

Mr. Frederick William Salter, of Brough, Yorks, left, among other bequests, £500 to the Hull Royal Infirmary and £1000 (if his estate will admit of it after paying all other legacies) to the British Empire Cancer Campaign, 19, Berkeley-street, London, W. (or if his residuary estate shall not amount to such sum any balance up to that sum).

THE MOTOR SHOW.

DOCTORS who are having trouble with motor spirit are advised, when at the motor show, to take the opportunity of discussing the matter with representatives of the British Petroleum Co. (the Anglo-Persian Oil Co.). They should also visit Duckham's stall. Duckham's new process oil is an entirely new departure in lubricant distillation and has heat-resisting properties possessed by no other oil on the market. A special brand at a lower price is marketed for Trojans. Finally, the doctor who is considering the replacement of tyres should inspect the cord tyres shown by Messrs. Dunlop.

CIVIC HEALTH WEEK.

Two booklets, issued by the public health departments of large urban areas, are good examples of the advantage being taken by the sanitary service of using Health Week as an opportunity to preach the gospel of healthy living.

St. Pancras celebrated Health Week from Oct. 3rd to 9th. Dr. G. Sowden sets out to teach every member of every family, and expressly states that the booklet is intended to be kept and referred to all through the year. A number of the most common infectious diseases—measles, whooping cough, diphtheria, scarlet fever, tuberculosis, and summer diarrhœa—receive a page each of simple directions, not with any idea of enabling parents to dispense with the advice of a qualified doctor, but to help them to avoid serious mistakes and risks. Everything is stated in commendably short, simple sentences—e.g.:

Health is won by a way of life—not by a bottle of medicine.
Do not take a suspected case to the doctor or hospital or dispensary—if you do, other persons in the waiting-room may catch the disease.
Cold air is no more dangerous than cold water.

In Kingston-upon-Hull the most important feature of Health Week, held from Oct. 16th to 23rd, was a Health Exhibition in the City Hall, admission to which was by the booklet, at 1*d.* each. A large part of the exhibition was supplied by the Central Council for Infant and Child Welfare, with the organiser, Miss M. H. Keating, in charge. A message was broadcast by Dr. W. Allen Daley, M.O.H., health talks were given, plays were performed by school children, and no less than 25 different health films were shown. There were also open days for visits to various health institutions, public and private. The object of this booklet is, first, to interest people in the exhibition, a full programme of events being included, and, secondly, to bring home to the citizens of Hull all the facilities existing for their help. Short illustrated accounts are given of such items as the municipal maternity home, a maternity and child welfare centre, the sunlight clinic, the city laboratories, a school for physically defective children, the tuberculosis after-care colony, and many other provisions of the public health department.

A beginning has been made in Liverpool with what promises to be a useful development in the campaign for the more intelligent interest in and coöperation with the work of public health authorities on the part of the mass of the citizens. Taking advantage of the "Civic Week" celebrations, the medical officer of health organised a series of lantern slides demonstrating the manifold activities of the local sanitary officers, not only in those departments which touch the daily life of the man in the street, but also in those wider fields of international medicine which are of the utmost importance in the life of a great sea-port. There was also shown a collection of models illustrating the housing problem and the treatment of slums. The opportunity was taken, too, of demonstrating some of the child welfare branches of the medical officer's department.

Last week, under the auspices of the Women's National Health Association, a "Health Week" was held in Dublin, where a number of lectures dealing with various aspects of the public health were delivered at the several babies' clubs throughout the city. In connexion with the campaign, an address on "Voluntaryism in Health" was delivered to the Dublin Rotary Club by Mr. E. P. McCarron, Secretary of the Department of Local Government and Public Health. He said that the importance of domestic and general sanitation had become more clearly understood, and a noticeable improvement had taken place in general cleanliness. The mean average rate of infant mortality for the Irish Free State had come down from 82 per 1000 in 1914–18 to 69 per 1000 in 1925, a fall largely, if not mainly, referable to the beneficent activities of maternity and child welfare schemes and other educational agencies. Special attention had been paid by the department and by local authorities to the correction of deformities in children. In regard to milk, considerable improvement was noticeable in most districts; milk-borne epidemics of enteric fever, at one time of constant occurrence, were now practically unknown. The death-rate from non-pulmonary tuberculosis associated with infected milk showed a decrease of 47 per cent. since 1904. New cleansing methods had been introduced; dust and dirt were being rapidly eliminated; the domestic phase of electricity was being developed. Best of all, progress in housing had been greatly accelerated. The Local Government Act of last year had abolished the wasteful and ineffective rural sanitary units. In another address delivered later in the week, Mr. McCarron stated that medical inspection of school-children would be undertaken at once when the new county medical officers of health had been appointed. Deputy T. Hennessy, F.R.C.S.I., in an address dealing mainly with the milk-supply of Dublin, stated that the milk produced in Dublin itself was derived from first-rate cows, kept under good conditions, but there was no control over the production of the inferior milk that reached Dublin from outside.

PUBLIC HEALTH IN NYASALAND.

THE Protectorate is divided for administrative purposes into four provinces—the Zomba, Southern, Central, and Northern—each of which is in charge of a commissioner. The chief towns are Blantyre, Limbe (near Blantyre), and Zomba (the seat of the Government). At the end of 1924 the European population was estimated at 1462, the Asiatic at 669, and the native population at 1,210,344. The admissions of Europeans to hospital were 192 in 1925, as compared with 147 in the previous year, whilst 451 were attended as out-patients, as compared with 559 in 1924. There were 3539 natives admitted to hospital and 115,690 treated as out-patients, as against 2842 and 114,043 respectively in 1924. Two cases of sleeping sickness in natives were admitted to hospital and both died. There were no cases of plague reported, and only one case of small-pox. There were no serious epidemics during the year.

The climate of Nyasaland in its essential features is similar to that of the rest of Eastern Africa within the tropics. As a large proportion of the Protectorate lies at an altitude of 3000 ft. or more, the heat is not generally excessive. The monsoon commences to blow strongly in September, and the first rains may be expected any time after mid-October. From their commencement to the end of December it is usual to experience violent thunderstorms and heavy precipitation in a few hours, followed by an interval varying from 1 to 15 or 20 days of intense heat. With the return of the sun from its southern limit of declination, the thunderstorms diminish in intensity and frequency, and are replaced by steady rain—January, February, and March being usually the wettest months as regards duration of rainfall as well as actual amount. After March the frequency and intensity of rainfall diminish rapidly, and from May to September the climate is comparatively cool and dry.

INFECTIOUS DISEASE IN ENGLAND AND WALES DURING THE WEEK ENDED OCT. 16TH, 1926.

Notifications.—The following cases of infectious disease were notified during the week:—Small-pox, 132 (last week 121); scarlet fever, 1839; diphtheria, 1166; enteric fever 75; pneumonia, 744; puerperal fever, 51; puerperal pyrexia, 129; cerebro-spinal fever, 5; acute poliomyelitis, 62; acute polio-encephalitis, 16; encephalitis lethargica, 33; continued fever, 1; dysentery, 12; ophthalmia neonatorum, 143. There were no cases of cholera, plague, or typhus fever notified during the week. The cases of poliomyelitis and polio-encephalitis are the subject of comment in an annotation. One case of small-pox was again reported from the London area, the remainder as before from the northern counties.

Deaths.—In the aggregate of great towns, including London, there was no death from small-pox, 1 (0) from enteric fever, 9 (0) from measles, 2 (0) from scarlet fever, 16 (4) from whooping cough, 39 (13) from diphtheria, 171 (28) from diarrhœa and enteritis under 2 years, and 38 (6) from influenza. The figures in parentheses are those for London itself.

CIVIL VITAL STATISTICS.—The Registrar-General's Statistical Review, 1925, Tables, Part II., Civil (price 5*s.*), is now on sale at H.M. Stationery Office. The review estimates the population of England and Wales on June 30th, 1925, as 38,890,000 against 38,746,000 in 1924, an increase of 144,000. The births registered in the year 1925 totalled 710,582, representing a rate of 18·3 per 1000 population, which was 0·5 per 1000 below the rate for 1924, and with the exception of the war years 1917–18 the lowest recorded. Excepting the war years 1917–19 the number of births is the lowest number registered in any year since 1861. The proportion of male to 1000 female births was 1045. This proportion showed a great increase during the war years and reached a maximum of 1060 in 1919, since when, with one exception, it has shown a continuous decline, but is still above the proportions recorded since 1860. The deaths numbered 472,841 and corresponded to a rate of 12·2 per 1000, the same as for the previous year, but 0·6 more than that for 1923, which was the lowest on record. The marriages registered in England and Wales during the year 1925 numbered 295,689, corresponding to a rate of 15·2 persons married per 1000 of the population, and shows a decrease of 727 over 1924.